City of Chesapeake Health Profile

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Chesapeake Health Department
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Contents

PUBLIC HEALTH

"The science and art of preventing disease, prolonging life and promoting health and efficiency through organized community effort."

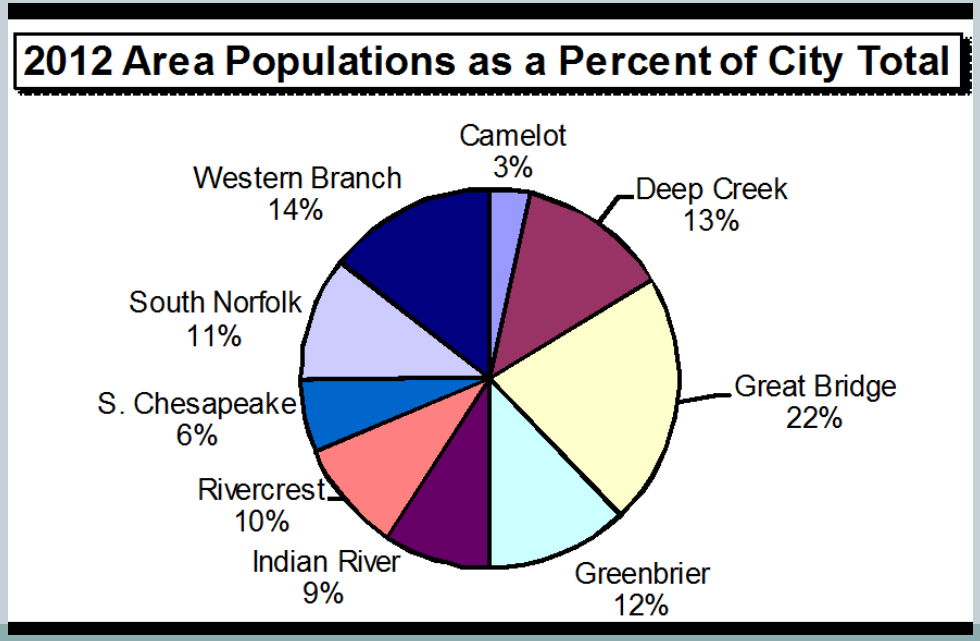
—Winslow, 1920

CARING FOR OUR COMMUNITY
CHESAPEAKE HEALTH DEPARTMENT

Demographics

Population Growth

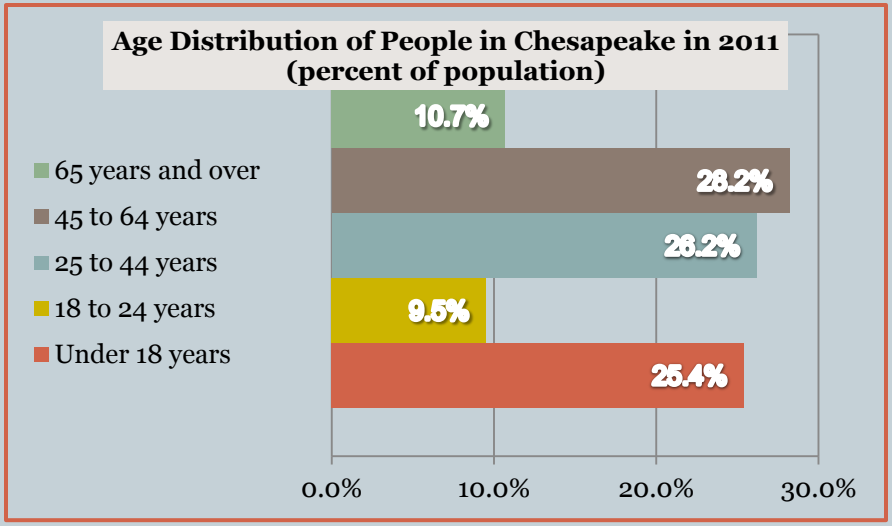
- The City's estimated population as of **January 1, 2012** is **226,138** persons, which is 189% greater than the 1963 population of 78,153.
- The 2012 estimate represents **a 1.11% increase between 2011** and **2012**. The growth rate for the previous year was 0.65% and the average annual growth rate over the past decade (1999-2009) is 1.14%.



Source: Chesapeake Planning Dept. 2012 Statistical Profile

Population Age Distribution

- The **July 1, 2011 American Community Survey (ACS) population estimate** for Chesapeake was **225,050**
  (July 1, 2012 estimate 228,417)
- **114,538 (51.4%)** females and **108,448 (48.6 %)** males
- **27.7%** of the population was **under 18** years old
- **10.5%** was 65 years and older
- The median **age** was **37.2 years**

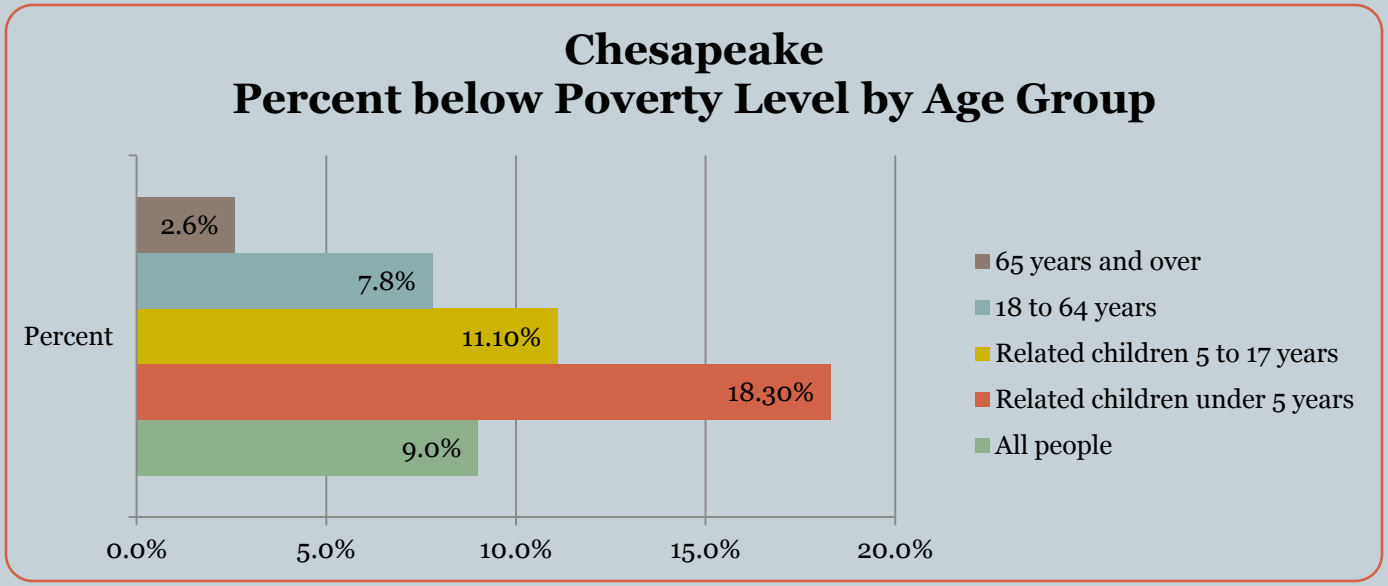


Source: American Community Survey, 2011

Poverty Rates in Chesapeake

(Percent below poverty level)

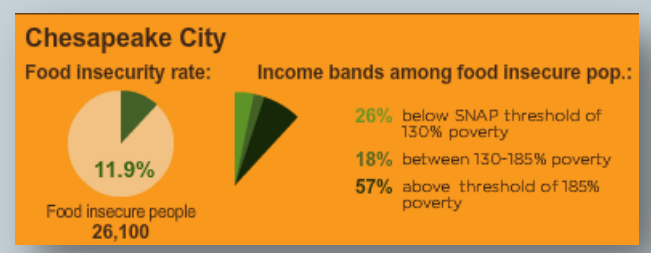
- In **2011, 9.3% of Chesapeake** citizens and **11.6% of Virginia** citizens (all ages) were in poverty
- Chesapeake's poverty rate for children **under 18 was 13.5%,** while **Virginia's rate was 15.6%**

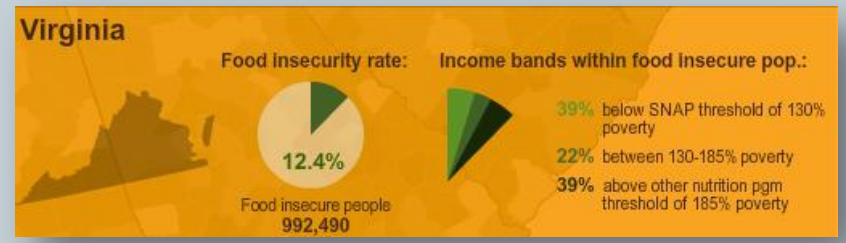


Sources: Small Area Income and Poverty Estimates http://www.census.gov/did/www/saipe/data/statecounty/index.html
http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_11_1YR_DP03&prodType=tabl

Food Insecurity

- Although related, food insecurity and poverty are not the same
- Food insecurity refers to USDA's measure of lack of access, at times, to enough food for an active health life for all household members and limited or uncertain availability of nutritionally adequate foods
- In many ways, America is the land of plenty; but for **1 in 6** people in the United States, hunger is a reality
- In 2010, **11.9%** of the population of Chesapeake were food insecure, compared to **12.4%** of Virginia's population

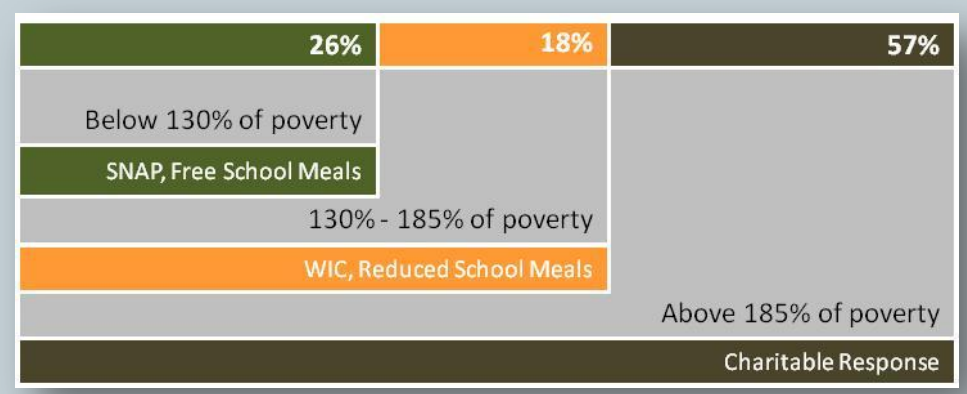




Source: http://feedingamerica.org/hunger-in-america/hunger-studies/map-the-meal-gap.aspx

Food Insecurity

- Availability of government support for households varies based (in part) on the household income as it relates to the poverty level
- Of the **26,100** food insecure people in Chesapeake, **57%** are above 185% of poverty and ineligible for Federal programs

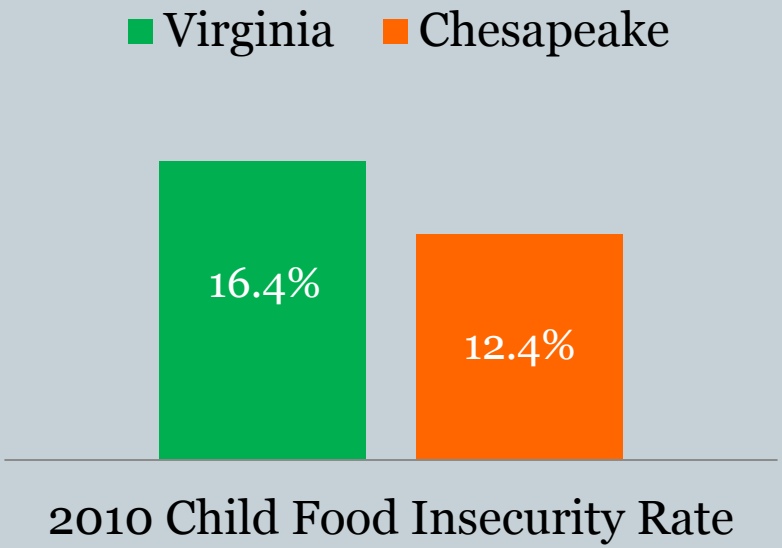


Source: http://feedingamerica.org/hunger-in-america/hunger-studies/map-the-meal-gap.aspx

Child Food Insecurity

- Although food insecurity is harmful to any individual, it is particularly devastating among children due to their increased vulnerability and the potential for long term consequences, including reduced cognitive development, increased illness and poor school performance

- In 2010, an estimated **7,060** children were food insecure in Chesapeake, that is **12.4%** of the city's children



2010 Child Food Insecurity Rate

Source: http://feedingamerica.org/hunger-in-america/hunger-studies/map-the-meal-gap.aspx

Access to Healthcare

Access to comprehensive, quality health care services is important for the achievement of health equity and for increasing the quality of a healthy life for everyone.

This topic area focuses on four components of access to care: coverage, services, timeliness, and workforce.

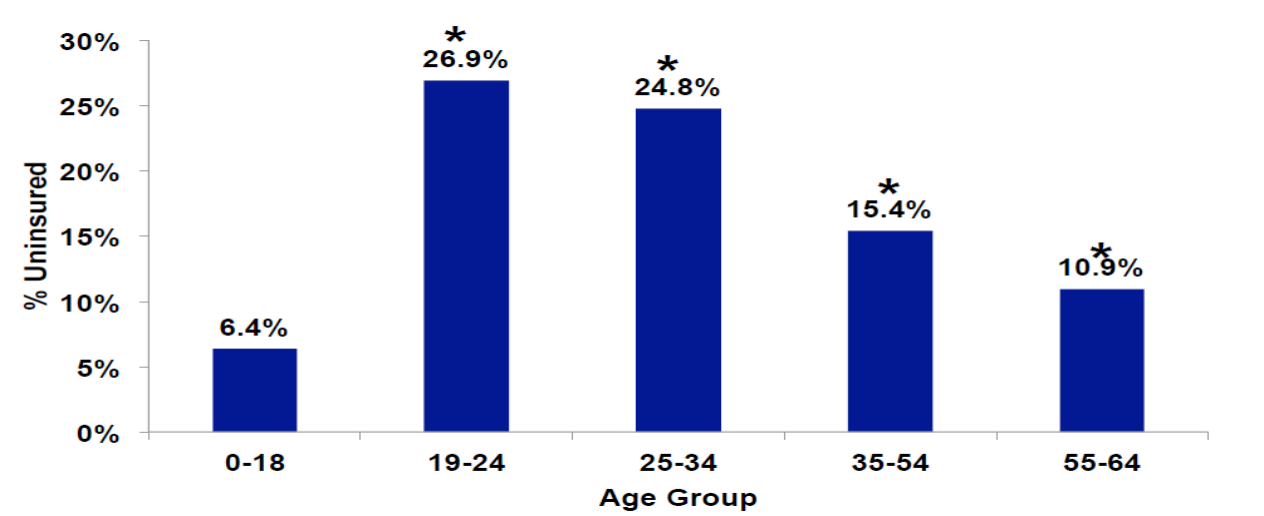
— Healthy People 2020

Changes Affecting Coverage

- **Increases in Medicaid and FAMIS (SCHIP) enrollment** since 2001 have helped to lower un-insurance rates of children and pregnant women.
- **Higher rates of unemployment and an influx of new immigrants** have led to an increase in the uninsured adult population
- **Private, employment related insurance** accounted for the majority of coverage across the Commonwealth.

Uninsured in Virginia: Facts at a Glance

- Young adults (19-24) are **4.2** times more likely to be uninsured than children (0-18) in Virginia



Notes: Asterisks indicate a percentage that is statistically different from the reference group (Age 0-18) percentage at the .10 level.

Source: Urban Institute, February 2012. Based on the 2010 American Community Survey (ACS) data from the Integrated Public Use Microdata Series (IPUMS). Estimates reflect additional Urban Institute adjustments for the underreporting of Medicaid/CHIP and the overreporting of private nongroup coverage (See Lynch et al, 2011). Coverage estimates were developed under a grant from the Robert Wood Johnson Foundation.

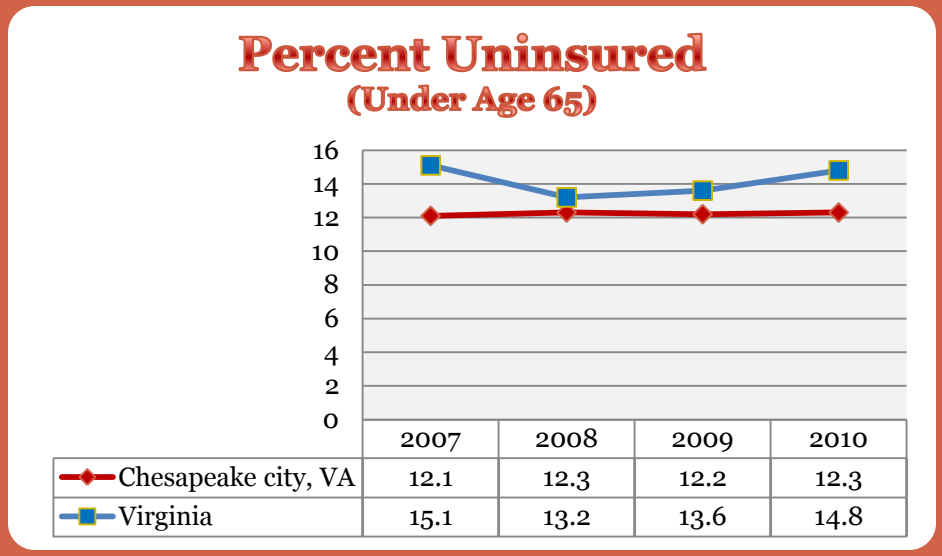
Source: http://www.vhcf.org/data/profile-of-the-uninsured/

Uninsured in Virginia: Facts at a Glance

- Nearly 15% of Virginians under age 65 are without medical insurance (**14.6%**).
- The majority of uninsured (**69.6%**) are part of working families.
- More than 70% (**70.6%**) of Virginia's uninsured had incomes below 200% of the federal poverty limit (FPL).
- The uninsured in Virginia represent all racial/ethnic groups:
  - 47 percent are white,
  - 24 percent are black,
  - 20 percent are Hispanic, and
  - 7 percent are Asian/Pacific Islanders.
- The vast majority of Virginia's uninsured are US citizens (**78.6%**)

Source: http://www.vhcf.org/data/

Uninsured in Chesapeake



Chesapeake Uninsured	2010	2013
Uninsured Nonelderly Age 0-64 Percent	12%	12%
Uninsured Adults Age 19-64 Percent	13%	15%
Uninsured Children Age 0-18 Percent	7%	6%

2010 & 2013 VA Atlas Data

Chronic Disease

Chronic Disease

- Risk Factors and Health Indicators
- Cardiovascular Disease
- Hypertension
- Diabetes Mellitus
- Cerebrovascular Disease (Stroke)
- Chronic Lower Respiratory Disease
- Malignant Neoplasms
- Alzheimer's Disease
- Breast & Cervical Cancer & Leading Causes of Death for Women

Risk Factors Related to Chronic Disease

- Chronic disease does not happen randomly or just by chance. The odds of a person developing a chronic disease are directly related to one or more risk factors that he or she has.

- These risk factors may be generally categorized into one of two categories:

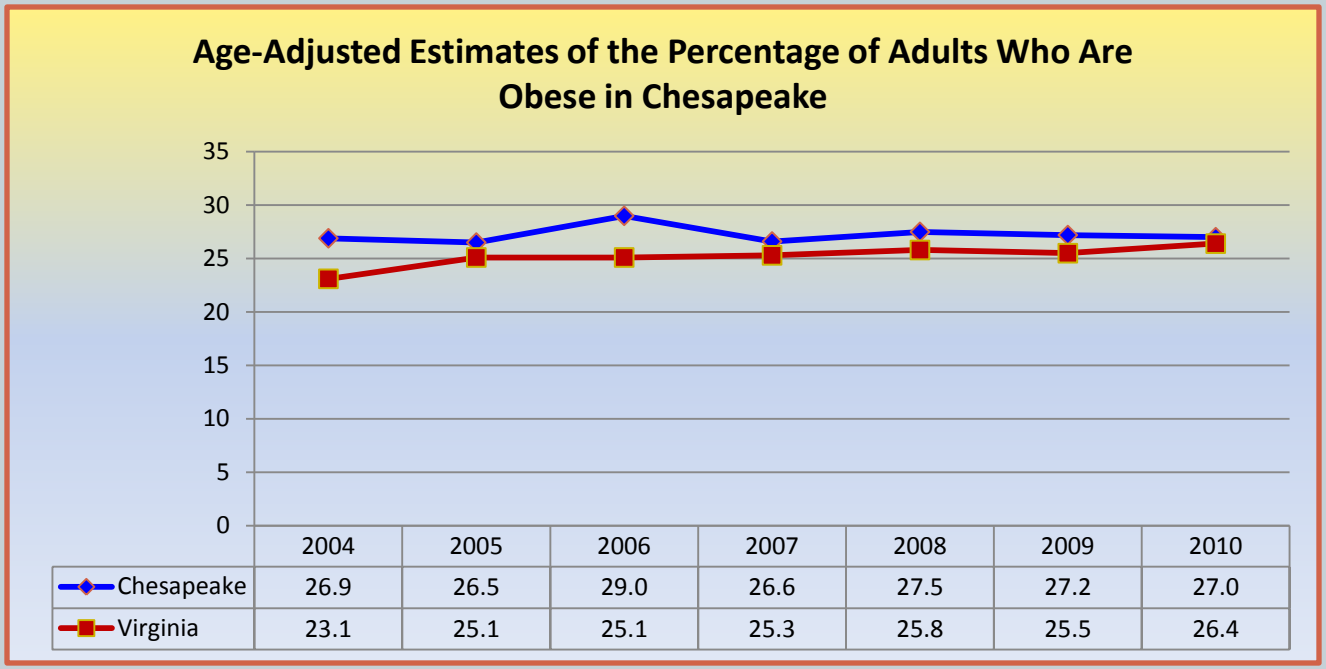
Chronic Disease Risk Factors

- The number of Americans diagnosed with diabetes has more than tripled since 1980[1] primarily due to Type 2 diabetes, which is closely linked to a rise **in obesity, inactivity, and older age.**

- In 2010, **23.9%** of U.S. adults reported no leisure time physical activity[1] or **no physical activity or exercise** other than at their regular job in the last 30 days.

[1]CDC, Press Release, May 22, 2012
http://apps.nccd.cdc.gov/brfss-smart/SelQuickViewChart.asp

Chronic Disease Risk Factors – Obesity



	2004	2005	2006	2007	2008	2009	2010
Chesapeake	26.9	26.5	29.0	26.6	27.5	27.2	27.0
Virginia	23.1	25.1	25.1	25.3	25.8	25.5	26.4

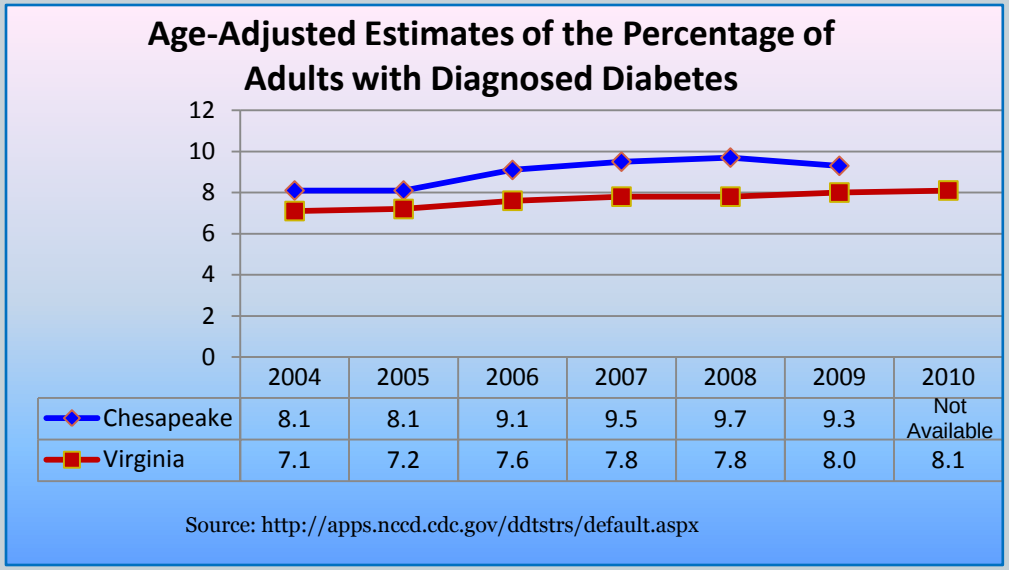
- The proportion of U.S. adults who were obese was **35.7% in 2009-2010**
- The average annual medical costs for an obese person are **$1,429 more** than those of a normal weight person[2]

[1]Age Adjusted Estimates, Source: CDC, BRFSS, , Prevalence and Trends Data, Virginia – 2009; Diabetes Data and Trends – 2009
[2]CDC, County Inactivity Facts, 2008

Chronic Disease Risk Factors – Diabetes

- Diabetes affects **8.3 percent of Americans of all ages, and 11.3 percent of adults aged 20 and older**, according to the National Diabetes Fact Sheet for 2011. About 27 percent of those with diabetes—7 million Americans—do not know they have the disease. Pre-diabetes affects 35 percent of adults aged 20 and older.

- The average medical expenditures among people with **diagnosed diabetes were 2.3 times higher** than what expenditures would be in the absence of diabetes[2]



	2004	2005	2006	2007	2008	2009	2010
Chesapeake	8.1	8.1	9.1	9.5	9.7	9.3	Not Available
Virginia	7.1	7.2	7.6	7.8	7.8	8.0	8.1

Source: http://apps.nccd.cdc.gov/ddtstrs/default.aspx

[1]Age Adjusted Estimates, Source: CDC, BRFSS, , Prevalence and Trends Data, Virginia – 2009; Diabetes Data and Trends – 2009
[2]CDC, County Inactivity Facts, 2008

Chronic Disease Health Indicators

Risk Factors, Arthritis and Asthma

	Percent Adults Who Are Obese [3]	Percent Adults Who Are Current Smokers [5]	Percent Adults with Arthritis [4]	Percent Adults with Current Asthma [4]	Asthma Hospitalizations - Rate per 100,000 [2]	
Chesapeake	27.2	13.5	27.6	10.1	119.3	
Virginia	25.5	16.4	27.2	8.6	120.4	

Diabetes, Heart Disease and Stroke

	Diabetes Hospitalizations - Rate per 100,000 [2]	Percent Adults with Diabetes [3]	Diabetes Deaths - Rate per 100,000 [1]	Heart Disease Deaths - Rate per 100,000 [1]	Cerebrovascular Disease Deaths - Rate per 100,000 [1]	Chronic Lower Respiratory Disease Deaths - Rate per 100,000 [1]
Chesapeake	165.0	9.1	23.6	178.9	45.3	32.3
Virginia	153.6	8.0	18.7	167.6	41.7	37.9

Source:
[1]VDH Division of Health Statistics, 2010. Rates (per 100,000) are age adjusted.
[2]Virginia Health Information. Based on 2007 data. Rates (per 100,000) are age adjusted.
[3]CDC, Diabetes and Trends – 2009
[4]Chronic Conditions; VDH; VA BRFSS, 2006-2008
[5]Tobacco Use & Risk Behaviors; VDH; VA BRFSS, 2010

Chronic Disease Health Indicators

Cancer

	Cancer Deaths - Rate per 100,000 [1]	Breast Cancer Deaths - Rate per 100,000 [1]	Colorectal Cancer Deaths - Rate per 100,000 [1]	Lung Cancer Deaths - Rate per 100,000 [1]	Prostate Cancer Deaths - Rate per 100,000 [1]
Chesapeake	206.7	27.7	21.1	61.8	37.7
Virginia	186.0	25.4	17.6	54.8	26.6

Cancer Preventive Services

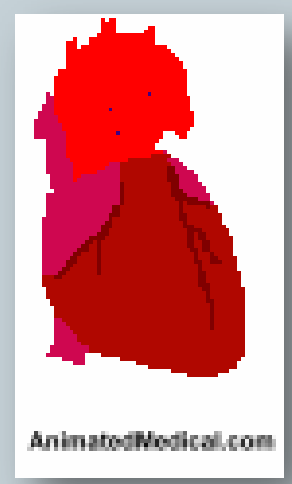
	No Mammogram Past 2 yrs; Women age 40+	No Pap Test Past 3 yrs; Women age 18+	PSA Test done in past 2 years, age 40+ [2]	No Sigmoidoscopy/ Colonoscopy - Lifetime; Age 50+ [3]	
Chesapeake	22.0	12.1	65.2	32.0	
Virginia	23.8	14.3	58.9	35.2	

Source:
[1]VDH Division of Health Statistics, Based on 2003-2007 data. Rates (per 100,000) are age-adjusted.
[2]Behavioral Risk Factor Surveillance System, District estimates are based on 2006 & 2008 (pooled) data
[3]Preventive Health Behaviors. VDH, OFHS, VA BRFSS. Rates based on 2004-2006 & 2008 data combined. Percentages are weighted.

Cardiovascular Disease (CVD)

(Diseases of the Heart – does not include hypertension)

- In 2011, **356** people in **Chesapeake** died from Diseases of the Heart
- **Chesapeake's** 2011 death rate/100,000 population was **181.6*;** while Virginia's was **161.3***
- The 2011 death rate in Chesapeake is **13.77% less than it was in 2005**

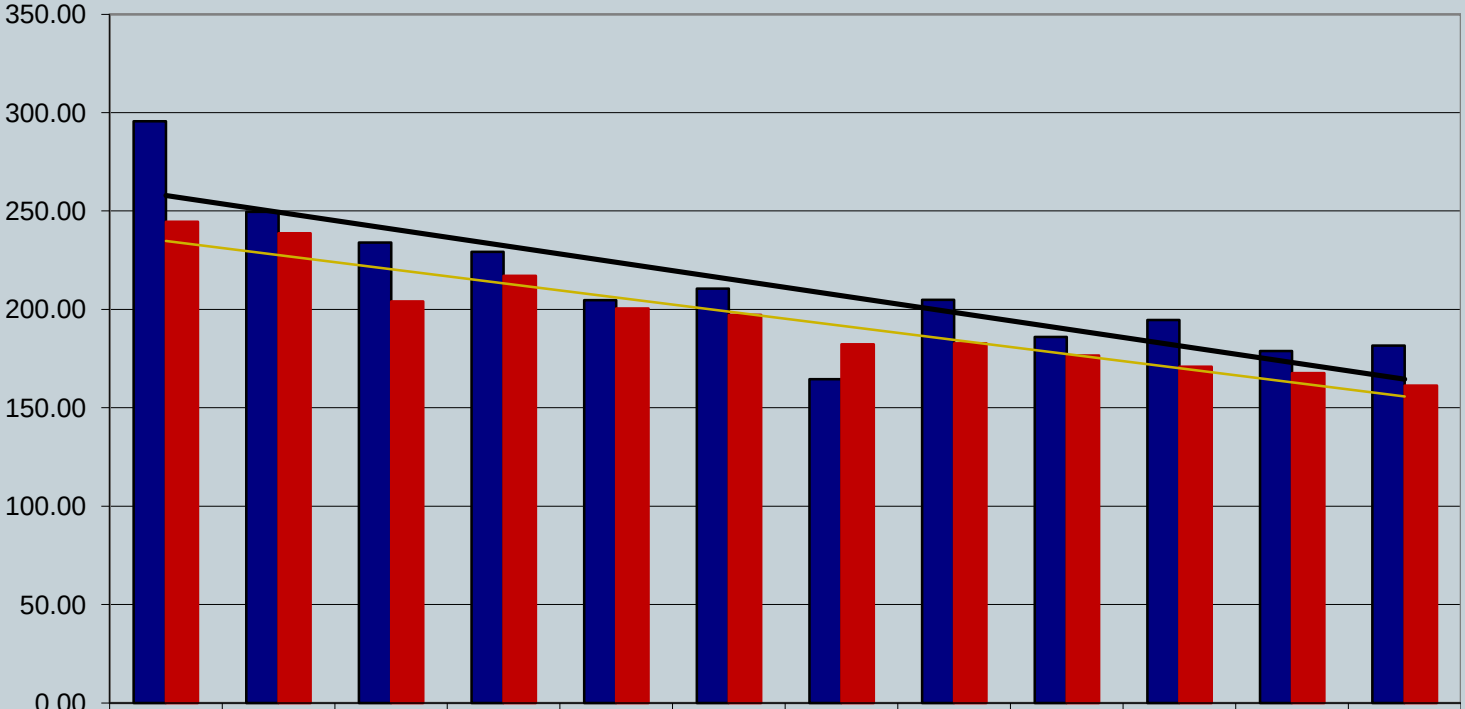


*Age-adjusted rates
Source: VDH Division of Health Statistics 2005,2010

Cardiovascular Disease (CVD)

(Diseases of the Heart – does not include hypertension)

Resident Deaths Caused by Diseases of the Heart w/Age-Adjusted Rates per 100,000 Population (w/Trendlines)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chesapeake	295.60	249.60	234.00	229.20	204.70	210.60	164.60	204.80	186.00	194.70	178.90	181.60
Virginia	244.50	238.70	204.00	217.10	200.50	197.20	182.20	182.80	176.50	170.80	167.60	161.30

Source: VDH Division of Health Statistics 2000-2011

CVD Deaths and Gender

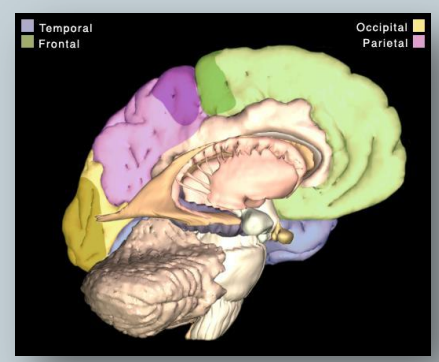
What the charts do NOT show:

- **Heart disease is the leading cause of death for women** in the US – 1 in every 4 female deaths in 2009; in **Virginia it is the second leading cause** of death for women
- **Heart disease and stroke** account for **28.5%** of all female deaths in Virginia (on average, about 23 women die every day)
- Nationally, **women account for more than 60% of the annual deaths due to stroke; in Virginia stroke is the third leading** cause of death for females.

Source: American Heart/Stroke Assn; Women & Cardiovascular Disease: Virginia

Cerebrovascular Diseases

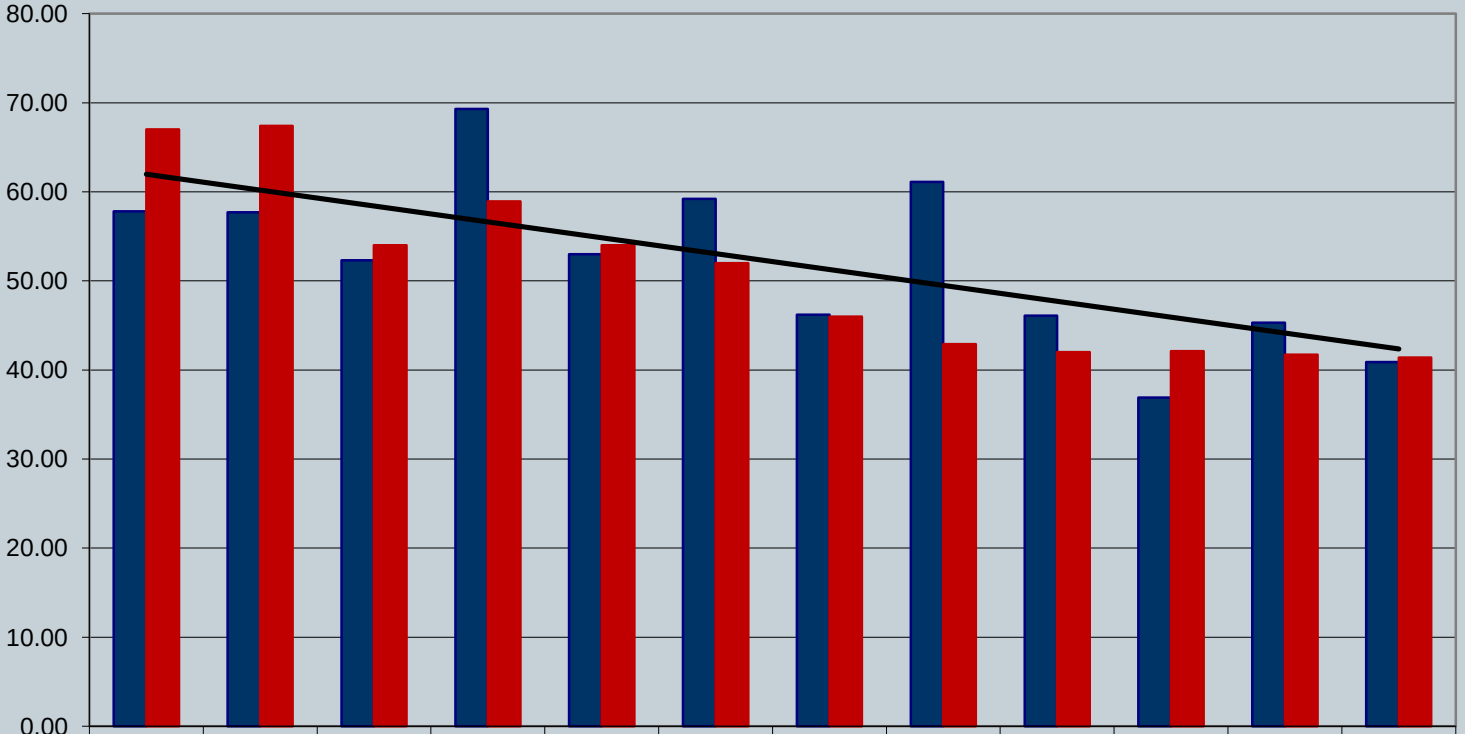
- In 2011, **78** people in Chesapeake died from Cerebrovascular Disease
- Chesapeake's 2011 death rate/100,000 population was **40.90***
- This death rate is **31% lower** than it was in 2005
- Virginia's 2011 death rate/100,000 population was **41.40***



*Age-adjusted rates
Source: VDH Division of Health Statistics 2005,2010

Cerebrovascular Diseases

Resident Deaths Caused by Cerebrovascular Diseases w/Age-Adjusted Rates per 100,000 Population (Trendline for Chesapeake)

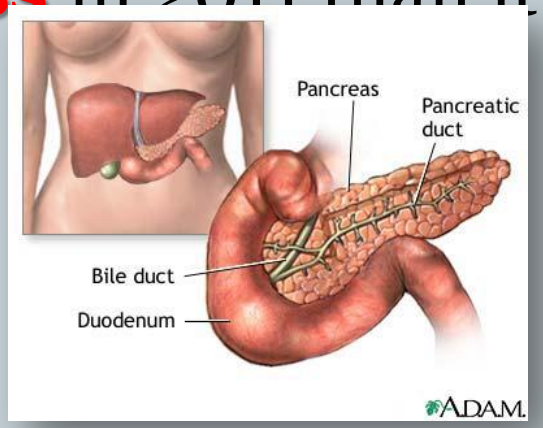


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chesapeake	57.80	57.70	52.30	69.30	53.00	59.20	46.20	61.10	46.10	36.90	45.30	40.90
Virginia	67.00	67.40	54.00	58.90	54.00	52.00	46.00	42.90	42.00	42.10	41.70	41.40

Source: VDH Division of Health Statistics 2000-2011

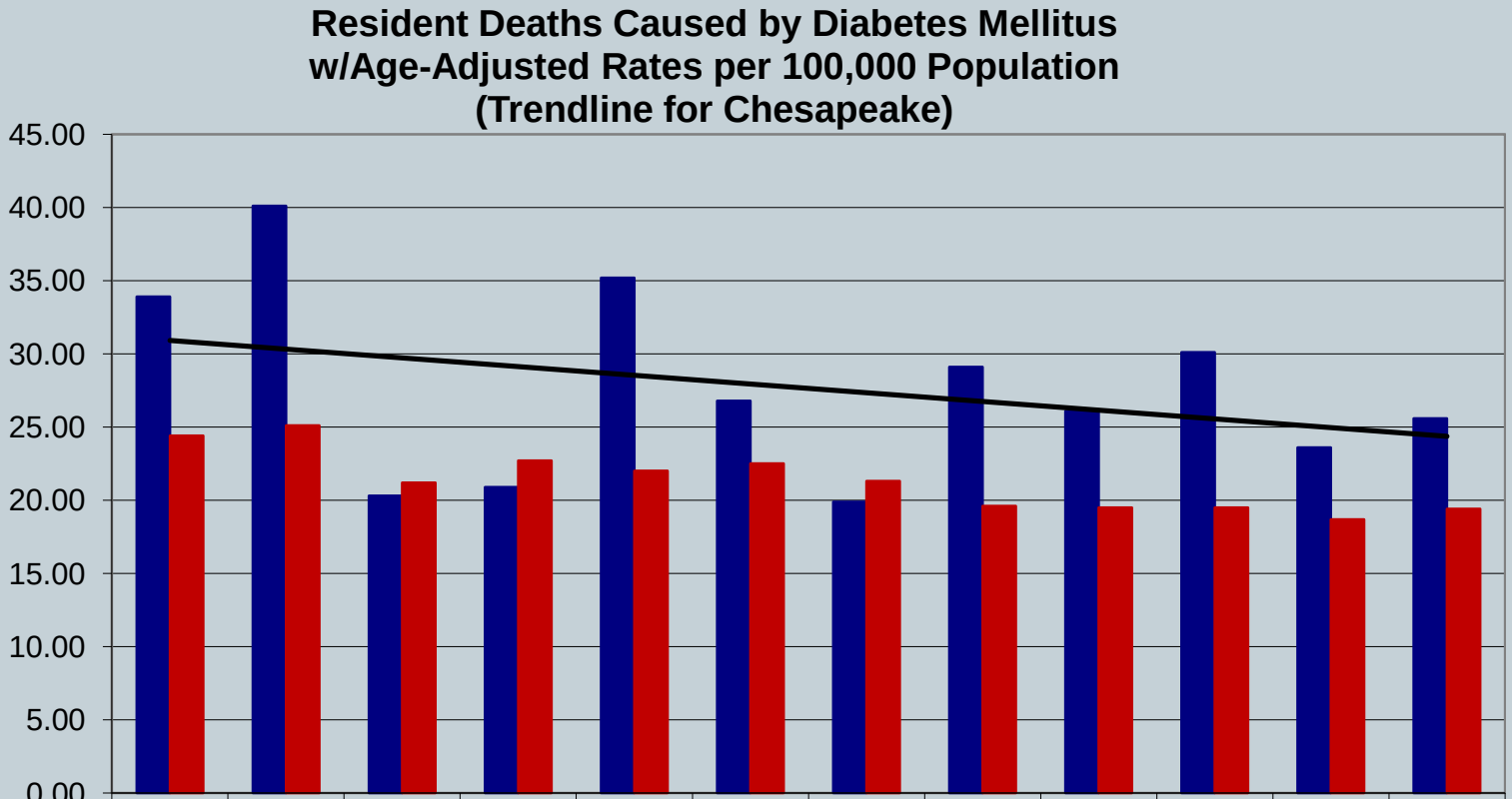
Diabetes Mellitus (DM)

- In 2011, **52** people in Chesapeake died from Diabetes Mellitus (if we had the same rate as the state, the deaths would have been reduced to 39)
- Chesapeake's 2011 DM death rate/100,000 population was **25.6***
- Our DM death rate was **4.5% less** in 2011 than it was in 2005
- Virginia 2011 DM death population was **19.4***



*Age-adjusted rates
Source: VDH Division of Health Statistics 2005,2011

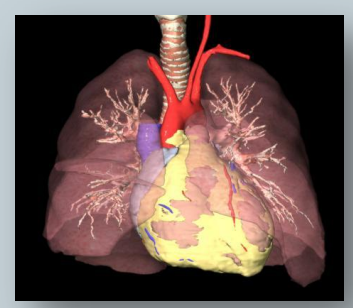
Diabetes Mellitus (DM)

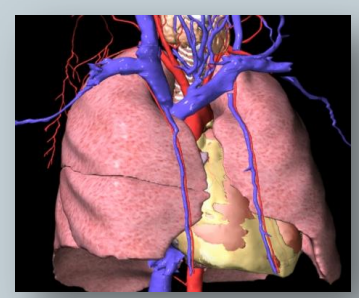


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chesapeake	33.90	40.10	20.30	20.90	35.20	26.80	19.90	29.10	26.10	30.10	23.60	25.60
Virginia	24.40	25.10	21.20	22.70	22.00	22.50	21.30	19.60	19.50	19.50	18.70	19.40

Source: VDH Division of Health Statistics, 2000-2011

Chronic Lower Respiratory Disease



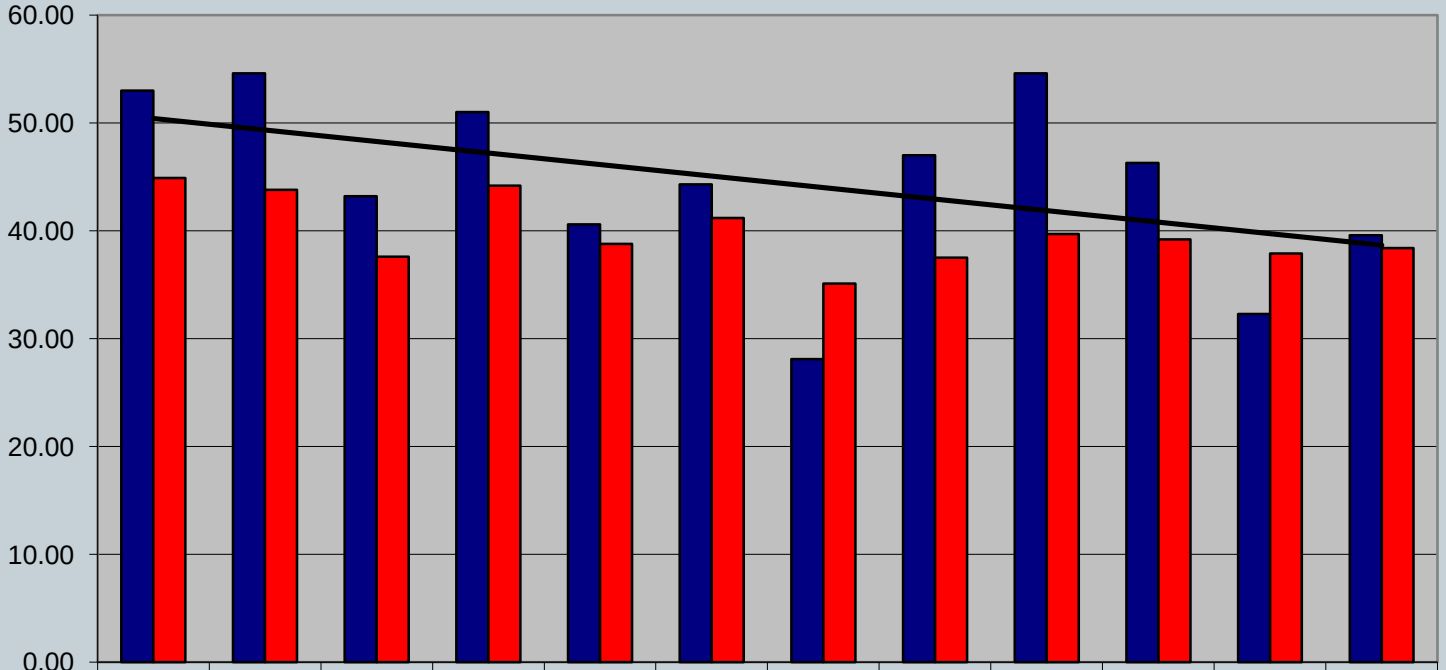


- In 2011, **75** people in Chesapeake died from Chronic Lower Respiratory Diseases
- Chesapeake's 2011 death rate/100,000 population was **39.6***
- This death rate in 2011 was **11% less** than in 2005
- Virginia's 2011 death rate/100,000 population was **38.4***

*Age-adjusted rates
Source: VDH Division of Health Statistics 2005,2010

Chronic Lower Respiratory Disease

Resident Deaths Caused by Chronic Lower Respiratory Disease w/Age-Adjusted Rates per 100,000 Population (Trendline for Chesapeake)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chesapeake	53.00	54.60	43.20	51.00	40.60	44.30	28.10	47.00	54.60	46.30	32.30	39.60
Virginia	44.90	43.80	37.60	44.20	38.80	41.20	35.10	37.50	39.70	39.20	37.90	38.40

Source: VDH Division of Health Statistics, 2000-2011

Malignant Neoplasms

- In 2011, **389** people in Chesapeake died from Malignant Neoplasms
- Chesapeake's 2011 death rate/100,000 population was **188.6***
- This death rate in 2011 was **17% less** than in 2005
- Virginia's 2011 death rate/100,000 population was **169.5***

*Age-adjusted rates
Source: VDH Division of Health Statistics 2005,2011

Malignant Neoplasms

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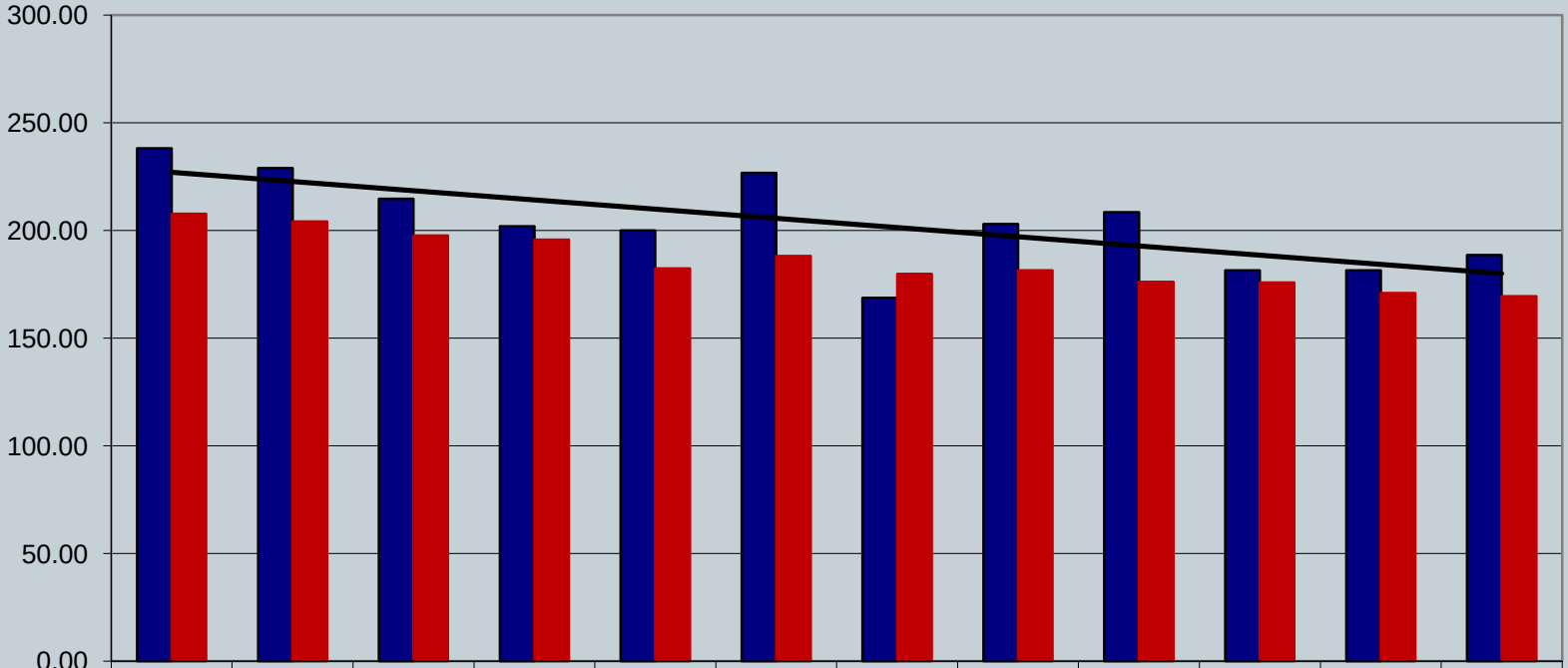
Resident Deaths Caused by Malignant Neoplasms w/Age Adjusted Rates per 100,000 Population (Trendline for Chesapeake)

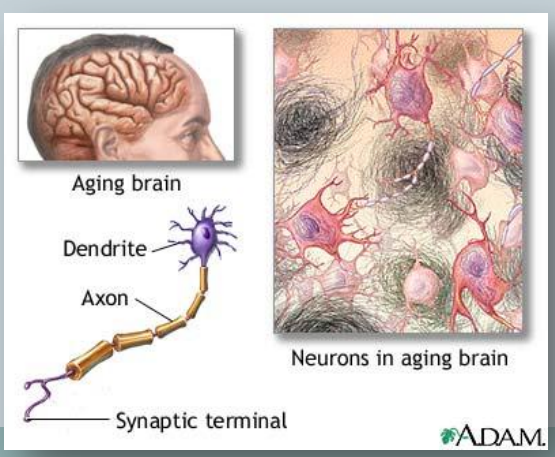


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chesapeake	238.10	228.90	214.70	202.00	200.00	226.70	168.70	203.00	208.50	181.50	181.50	188.60
Virginia	207.80	204.20	197.60	195.70	182.40	188.20	179.90	181.50	176.20	175.80	170.90	169.50

Source: VDH Division of Health Statistics, 2000-2011

Alzheimer's Disease

- In 2011, **54** people in Chesapeake died from Alzheimer's Disease
- Chesapeake's 2011 death rate/100,000 population was **30.8***
- This death rate **increased 27.8%** from 2005-2011
- Virginia's 2011 death rate/100,000 population was **23.0***



*Age-adjusted rates
Source: VDH Division of Health Statistics 2005,2011

Alzheimer's Disease

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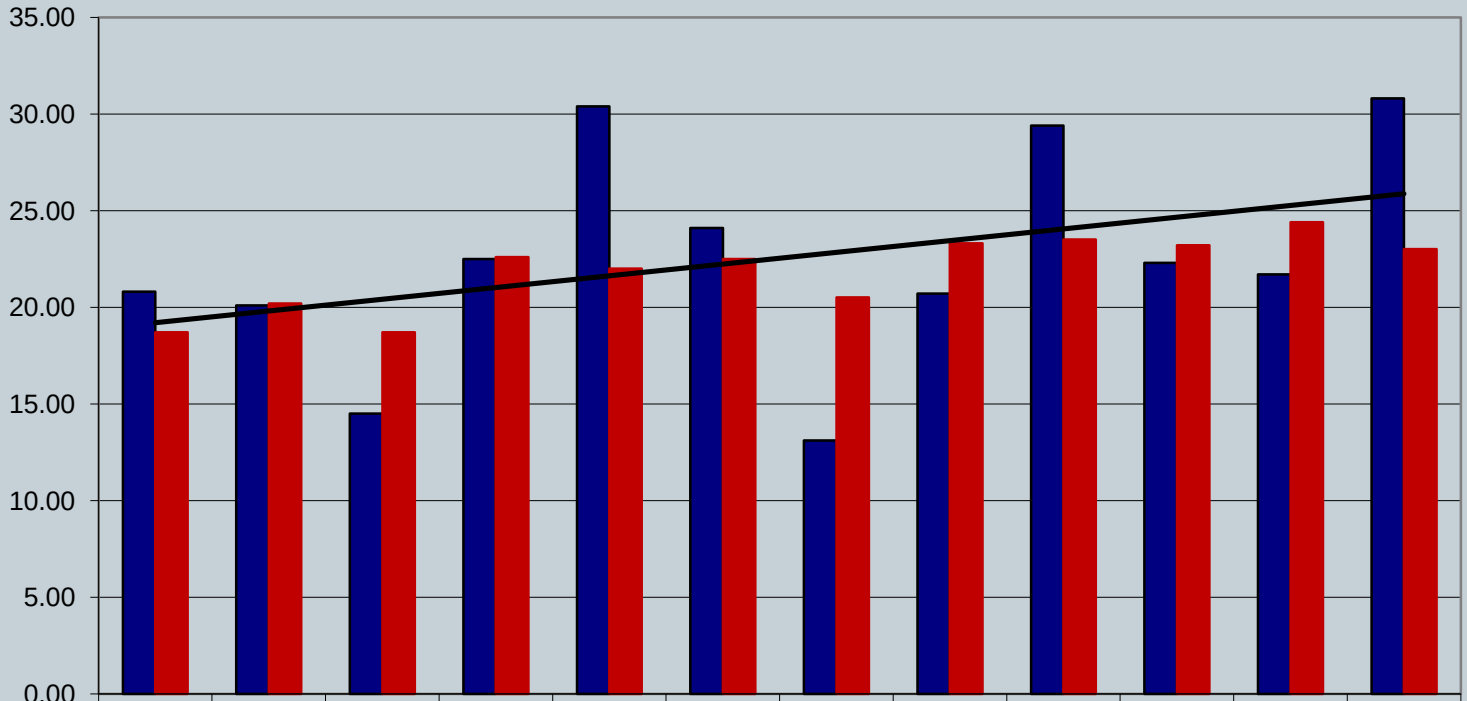
Resident Deaths Caused by Alzheimer's Disease w/Age-Adjusted Rates per 100,000 Population (Trendline for Chesapeake)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chesapeake	20.80	20.10	14.50	22.50	30.40	24.10	13.10	20.70	29.40	22.30	21.70	30.80
Virginia	18.70	20.20	18.7	22.60	22.00	22.50	20.50	23.30	23.50	23.20	24.40	23.00

Source: VDH Division of Health Statistics, 2000-2011

Breast & Cervical Cancer Early Detection Program (BCCEDP)

- $97,360 of grant funding was provided in 2011; 296 patients were able to receive services because of this funding
- Chesapeake "Every Woman's Life" Statistics

	FY 02-03	FY 03-04	FY 04-05	FY 05-06	FY 06-07	FY 07-08	FY 08-09	FY 09-10	FY 10-11
# Patients diagnosed with breast cancer	2	5	6	6	10	10	10	8	4
# Patients with abnormal cervical results	4	15	10	4	6	11	14	7	18

- Nine surgeons, two gynecologists, one radiologist group, one anesthesiologist group, Chesapeake Regional Medical Center and The Surgery Center of Chesapeake volunteer their services to this program
- During the past 12 months:

11	Colposcopies	11	Surgeries
69	Surgical consultations	284	Mammograms
28	Needle Biopsies	82	Ultrasounds
8	Stereotactic biopsies	6	MRIs

Virginia Breast & Cervical Cancer Mortality Rates

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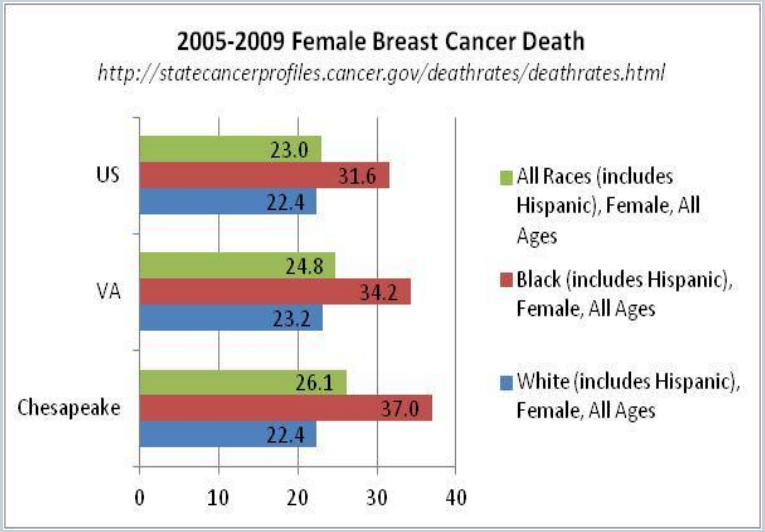


Incidence Trends

- Caucasian women have a higher rate of developing breast cancer than any other racial or ethnic group.
- However, among women under age 45, African Americans have a higher incidence newly diagnosed of breast cancer. And are more likely to be diagnosed with larger tumors.
- Hispanic women have a lower incidence of breast cancer than Caucasian, however, they are more likely to be diagnosed with larger tumors and late stage breast cancer.

1Based on combined 2005-2009 data. Rates are age- adjusted to the 2000 U.S. standard population. Districts are ranked in terms of incidence rates from highest (=1) to lowest (=35). Districts with lower rankings (i.e. higher incidence rates) are at greater risk.

2 Based on combined 2005-2009 data. Percentage of Local Stage cancers are reported using the Summary Staging System. Districts are ranked in terms of percentage of cases diagnosed early (local) from lowest (=1) to highest (=35). Districts with lower rankings (i.e. lower early stage percentages) are at greater risk.

Cervical Cancer Data

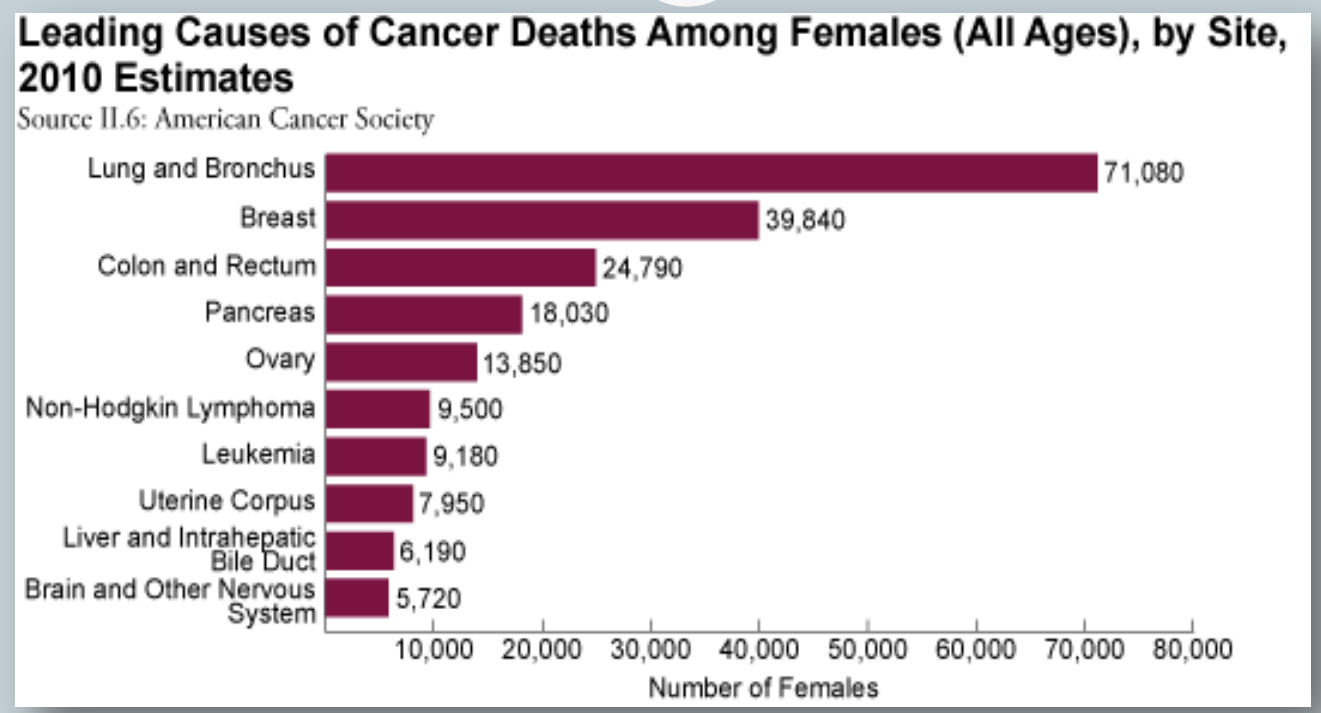
Combined 2005-2009 data

Health District	Incidence [1]				Staging [2]
	Count	Rate per 100,000	95%CI	Rank	Percent Local Stage
Chesapeake	44	7.9	5.7-10.6	11	32%

Sources: Incidence and percent local staging (VA Cancer Registry System).

Source: http://statecancerprofiles.cancer.gov/

Leading Causes of Cancer Deaths Among Females in the United States



- Aside from non-melanoma skin cancer, **breast cancer** is the **most common form of cancer** in women
- **Breast cancer** is the **number one cause of cancer death in Hispanic women** and the **second most common in white, black, Asian/Pacific Islander, and American Indian/Alaska Native women**

Source: http://mchb.hrsa.gov/whusa10/hstat/hi/pages/213c.html; http://www.cdc.gov/cancer/dcpc/data/women.htm

Ten Leading Causes of Death Among Women in the U.S. Aged 18 & Older, by Race/Ethnicity, 2010

Ten Leading Causes of Death Among Women Aged 18 and Older, by Race/Ethnicity, 2010

	Total	Non-Hispanic White	Non-Hispanic Black	Hispanic	Non-Hispanic American Indian/Alaska Native	Non-Hispanic Asian/Pacific Islander
Cause of Death	**% (Rank)**	**% (Rank)**	**% (Rank)**	**% (Rank)**	**% (Rank)**	**% (Rank)**
Heart Disease	23.8 (1)	23.8 (1)	24.8 (1)	22.0 (2)	17.2 (2)	21.7 (2)
Malignant Neoplasms (cancer)	22.4 (2)	22.0 (2)	23.3 (2)	23.6 (1)	20.0 (1)	28.8 (1)
Cerebrovascular Diseases (stroke)	6.3 (3)	6.2 (4)	6.6 (3)	6.3 (3)	4.4 (7)	8.7 (3)
Chronic Lower Respiratory Diseases	6.0 (4)	6.6 (3)	3.0 (6)	3.2 (7)	5.3 (6)	2.4 (8)
Alzheimer's Disease	4.8 (5)	5.2 (5)	2.7 (7)	3.7 (6)	2.5 (9)	3.1 (6)
Unintentional Injury	3.5 (6)	3.6 (6)	2.6 (8)	4.1 (5)	7.5 (3)	3.2 (5)
Diabetes Mellitus	2.8 (7)	2.3 (8)	4.7 (4)	5.2 (4)	6.3 (4)	3.7 (4)
Influenza and Pneumonia	2.2 (8)	2.2 (7)	(N/A)	2.3 (9)	2.2 (10)	3.0 (7)
Nephritis (kidney inflammation)	2.1 (9)	1.9 (9)	3.5 (5)	2.5 (8)	2.7 (8)	2.4 (9)
Septicemia (blood poisoning)	1.5 (10)	1.4 (10)	2.4 (9)	(N/A)	(N/A)	(N/A)

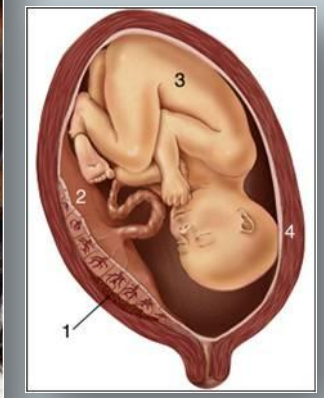
N/A = not in the top 10 leading causes of death for this racial/ethnic group.

Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). Retrieved from http://www.cdc.gov/injury/wisqars. Accessed 03/30/12 and 06/11/12.

One of the most noticeable differences in leading causes of death by race and ethnicity is that Diabetes Mellitus was the seventh leading cause of death among non-Hispanic white women, while it was the fourth among all other racial and ethnic groups.

Source: http://www.mchb.hrsa.gov/whusa12/hs/hshi/downloads/img/lcdTre.gif

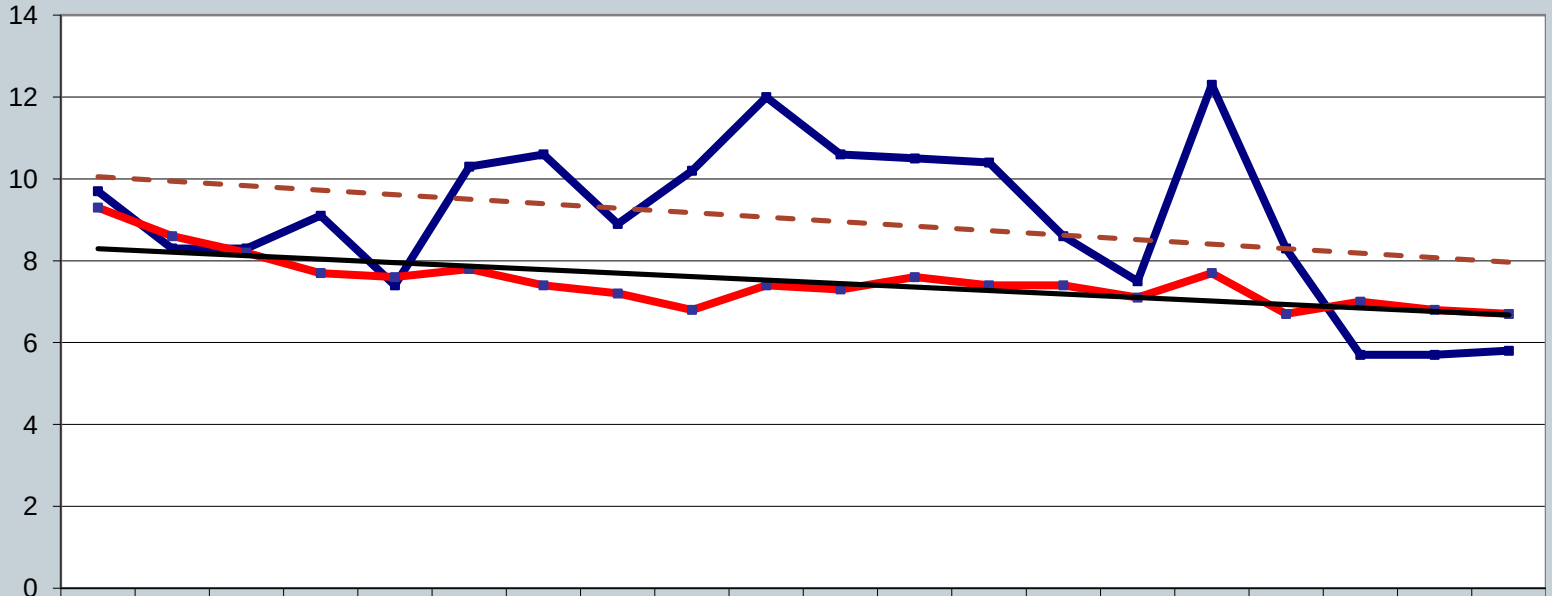
Maternal & Child Health



INFANT MORTALITY

Chesapeake Total Infant Mortality Rate Per 1,000 Births w/Trendlines

- Infant mortality is the death, prior to one year of age, of an infant born alive
- Despite the fact that Virginia ranked **7th in per capita income** in 2010[1], the Commonwealth **ranks 31st among states on the measure of infant mortality[2]**

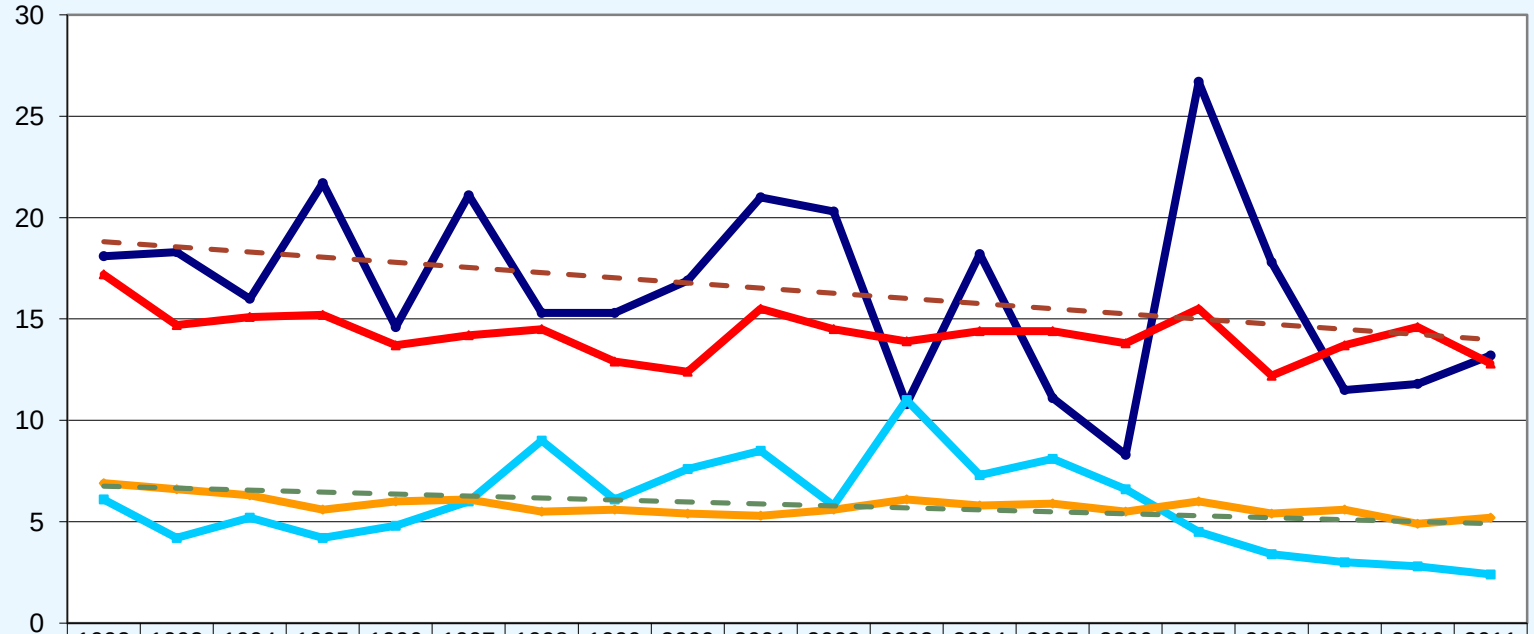


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chesapeake	9.7	8.3	8.3	9.1	7.4	10.3	10.6	8.9	10.2	12	10.6	10.5	10.4	8.6	7.5	12.3	8.3	5.7	5.7	5.8
Virginia	9.3	8.6	8.2	7.7	7.6	7.8	7.4	7.2	6.8	7.4	7.3	7.6	7.4	7.4	7.1	7.7	6.7	7.0	6.8	6.7

[1] http://bber.unm.edu/econ/us-pci.htm
[2] http://datacenter.kidscount.org/data/acrossstates/Rankings.aspx?loct=2&by=v&order=a&ind=6051&dtm=12719&tf=133
Source: VDH Division of Health Statistics, 2000-2011

Infant Mortality by Race

Infant Mortality Rates/1000 Births by Race w/Chesapeake Trendlines



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chesapeake/Black	18.1	18.3	16	21.7	14.6	21.1	15.3	15.3	16.9	21	20.3	10.8	18.2	11.1	8.3	26.7	17.8	11.5	11.8	13.2
VA/Black	17.2	14.7	15.1	15.2	13.7	14.2	14.5	12.9	12.4	15.5	14.5	13.9	14.4	14.4	13.8	15.5	12.2	13.7	14.6	12.8
Chesapeake/White	6.1	4.2	5.2	4.2	4.8	6	9	6.1	7.6	8.5	5.8	11	7.3	8.1	6.6	4.5	3.4	3.0	2.8	2.4
VA/White	6.9	6.6	6.3	5.6	6	6.1	5.5	5.6	5.4	5.3	5.6	6.1	5.8	5.9	5.5	6	5.4	5.6	4.9	5.2

Source: VDH Division of Health Statistics, 2000-2011

Infant Mortality Causes (IM)

- The exact cause behind the relative differences in infant mortality rates across regions is unclear. Generally, however, the rate is associated with:
  - **Maternal health**
  - **Quality and access to medical care**
  - **Socioeconomic conditions, including poverty, substandard housing, illiteracy, substance abuse, and exposure to pollutants.**
- In Virginia, the three leading causes of infant deaths are:
  - **Birth defects**
  - **Extreme immaturity (preterm birth and low-birth weight)**
  - **SIDS (sudden infant death syndrome)**

Source: http://hamptonroadsperforms.org/indicators/healthFamily/infant-mortality.php

Baby Care Case Management Program

Baby Care *is a home-visiting, case management program providing nursing assessment and medical and social referrals for high-risk pregnant women and infants up to the age of two.*

Baby Care Case Management Program Birth Outcomes Comparison

Baby Care clients (high-risk pregnancies) compared to the general population of births throughout Chesapeake during the **2008-2012** period:

- **Lower rate of infant mortality**
  - **3.60/1000 live births** compared to **6.03 for the general** Chesapeake population
- **Lower rate of prematurity**
  - **8.3% vs. 10.5%**
- **Slightly higher rate of low birth weight**
  - **9.7% vs. 9.0%** (however not compared to all the other high-risk pregnancies)

Baby Care Case Management Program Client Demographics

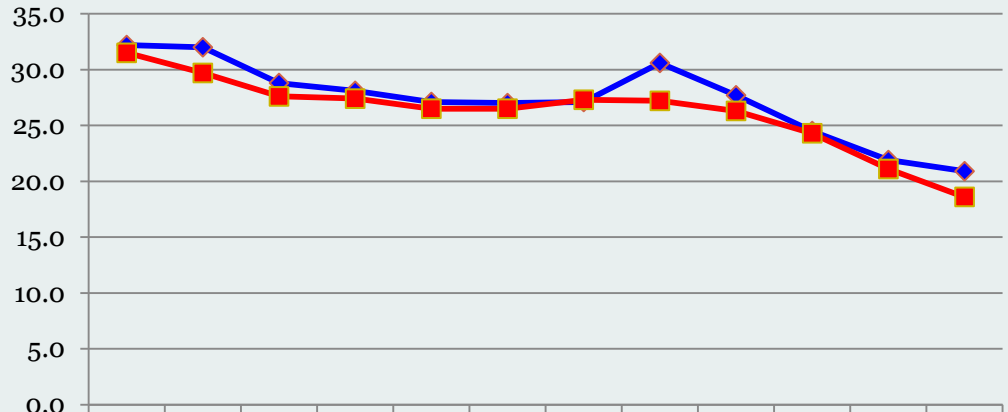
Compared to the general population, Baby Care clients had the following characteristics:

• Not married:	• 83.1% vs. 37.8%
• 1st time mothers:	• 64.4% vs. 41.6%
• Had a "medical history" during pregnancy:	• 38.1% vs. 31.6%
• Medicaid client:	• 66.5% vs. 24.9%
• Tobacco use:	• 11.9% vs. 5.4%
• Marijuana use:	• 2.9% vs. 0.5%
• Cocaine use:	• 0.7% vs. 0.1%

Teen Pregnancy

Teens have a greater risk of complications from pregnancy— preterm and low birth weight births. The discrepancy by race puts one segment of our population at greater risk and also creates challenges for those children to thrive and reach their fullest potential.

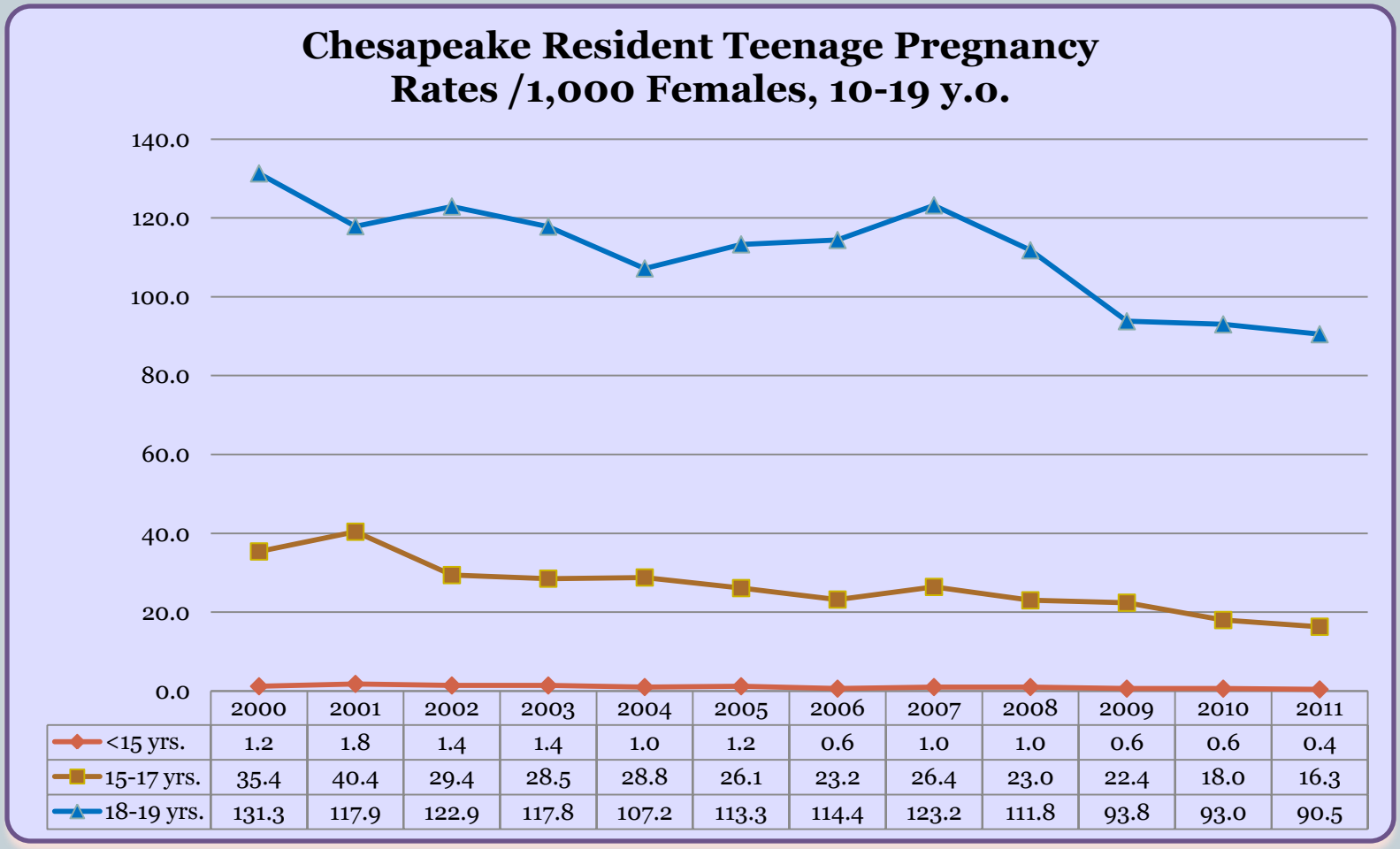
Chesapeake/Virginia
Teen Pregnancy Rates/1,000 Females 10-19 y.o.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chesapeake	32.2	32.0	28.8	28.1	27.1	27.0	27.1	30.6	27.7	24.5	21.9	20.9
Virginia	31.5	29.7	27.6	27.4	26.5	26.5	27.3	27.2	26.3	24.3	21.1	18.6

Source: VDH Division of Health Statistics , 2000-2011

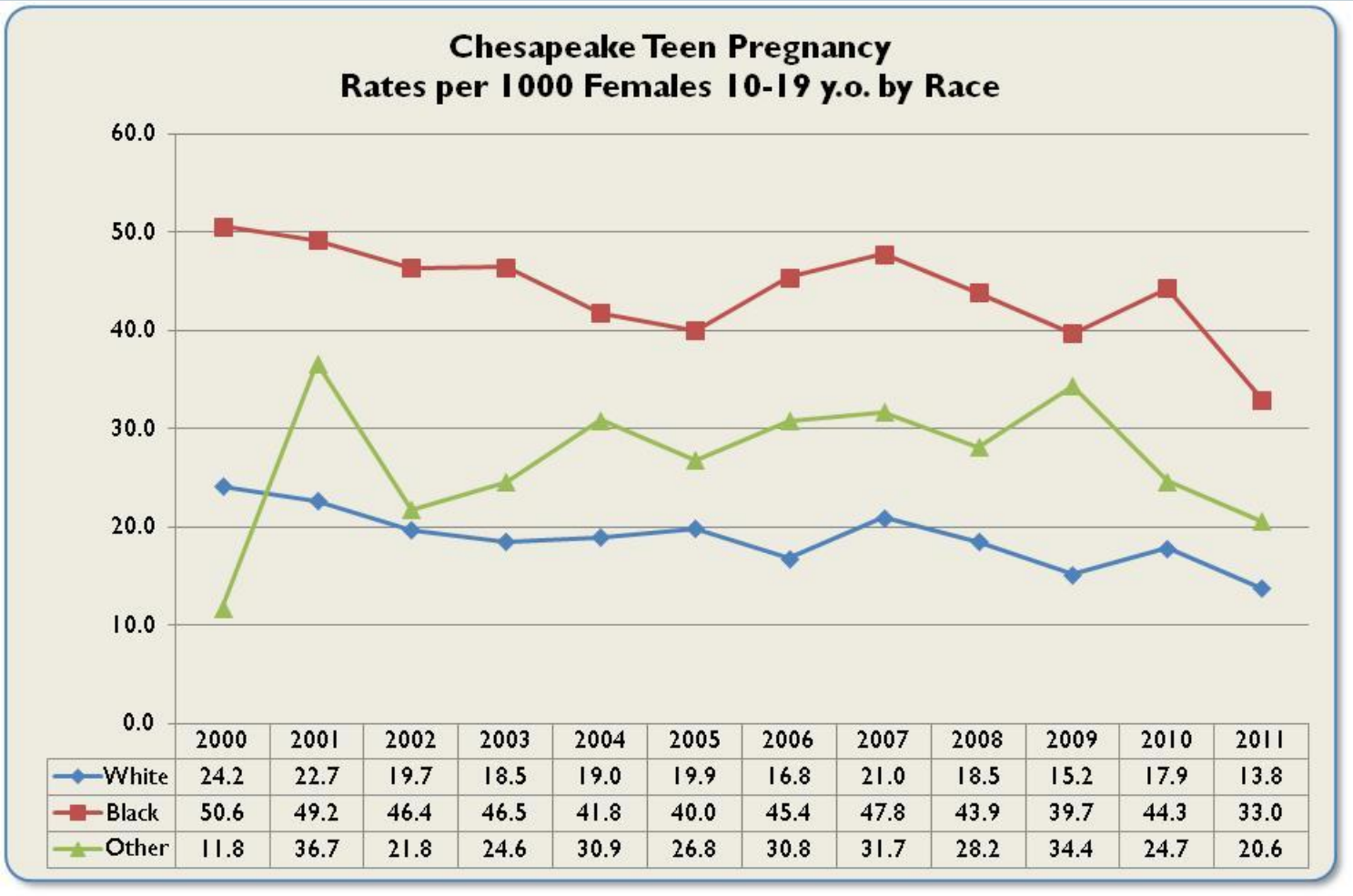
Teen Pregnancy by Age Group



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<15 yrs.	1.2	1.8	1.4	1.4	1.0	1.2	0.6	1.0	1.0	0.6	0.6	0.4
15-17 yrs.	35.4	40.4	29.4	28.5	28.8	26.1	23.2	26.4	23.0	22.4	18.0	16.3
18-19 yrs.	131.3	117.9	122.9	117.8	107.2	113.3	114.4	123.2	111.8	93.8	93.0	90.5

Source: VDH Division of Health Statistics

Teen Pregnancy by Race

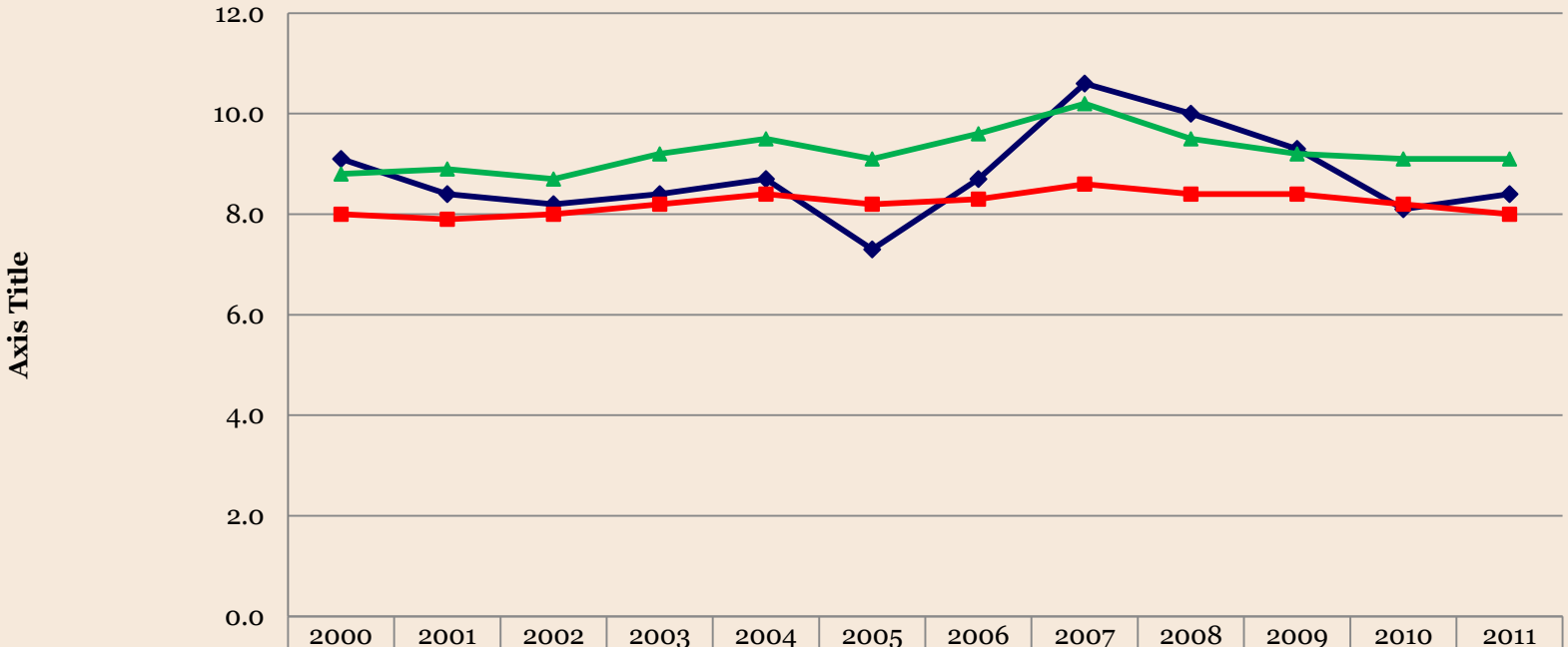


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
White	24.2	22.7	19.7	18.5	19.0	19.9	16.8	21.0	18.5	15.2	17.9	13.8
Black	50.6	49.2	46.4	46.5	41.8	40.0	45.4	47.8	43.9	39.7	44.3	33.0
Other	11.8	36.7	21.8	24.6	30.9	26.8	30.8	31.7	28.2	34.4	24.7	20.6

Source: VDH Division of Health Statistics, 2000-2011

Low Weight Birth (<2500 grams)

Resident Low Weight Live Births
(as Percent of Total Live Births)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chesapeake	9.1	8.4	8.2	8.4	8.7	7.3	8.7	10.6	10.0	9.3	8.1	8.4
Virginia	8.0	7.9	8.0	8.2	8.4	8.2	8.3	8.6	8.4	8.4	8.2	8.0
Planning District	8.8	8.9	8.7	9.2	9.5	9.1	9.6	10.2	9.5	9.2	9.1	9.1

Source: VDH Division of Health Statistics, 2000-2011

2012 Premature Birth Report Card*

- Chesapeake's **rate of premature deliveries in 2012 was 9.7%** (would earn a B grade)
  - A reduction from 11.4% (State rate) to 9.7% would equate with 42 Chesapeake births now born at full term instead of preterm.
- **Late preterm births constituted 6.4%** of Chesapeake births in 2012
  - Compared with the State rate of 8.0%, this would equate to 25 infants now born at full term instead of late preterm.
- **C-sections steadily rose from 29.4% of deliveries in 2003 to a high of 36.3% in 2007.** It has dropped down to 35.7% and remained steady for two years (2008 & 2009). **In 2012, it decreased to 32.5%.**
  - Compared with rates for the past few years, this drop in Cesarean rate would result in 69 fewer C-sections.

*2012 March of Dimes Birth Report Card

Race and Birth Indicators

- African American (AA) babies are more than **2-1/2 times more likely to be born with a low birth weight** (<2500 grams) than Caucasian babies.
  - If the rate for AA babies was the same as for Caucasian (5.5%), 73 more AA babies would have been born at a normal weight in 2011 in Chesapeake.
  - Alternatively, if the rate for Caucasian babies were the same as the current rate for AA babies (13.8%), 135 more Caucasian babies would have been born with a low birth weight.
- The percentage of **premature births in AA is 11.6% versus 8.5% for Caucasians** and **9.7%** for all of Chesapeake.
- **Caucasian women are 3-1/2 more likely than AA women to have private insurance** at the time of delivery.
- Regarding education, **13.9% of the AA women delivering babies had less than a high school education**. The rate for Caucasian women was 6.9%, less than half of that for AA women.

*2012 March of Dimes Birth Report Card

Consequences and Costs

- Children who were low birth weight infants are almost **50% more likely than normal weighted infants to be enrolled in special education.**
  - With 6,712 children engaged in special education programs in Chesapeake, this implies 4,027 children are enrolled due to the complications of being a low birth weight infant.
- The Institute of Medicine determined that the **annual societal economic burden associated with pre-term birth was $51,600 per pre-term infant.**
  - A reduction from the State rate (11.4%) to Chesapeake's rate (9.7%), would equate with 42 Chesapeake births now born at full term instead of preterm.
  - A reduction from the State rate (11.4%) to Chesapeake's rate (9.7%) would save over $2 million a year.

*2012 March of Dimes Birth Report Card

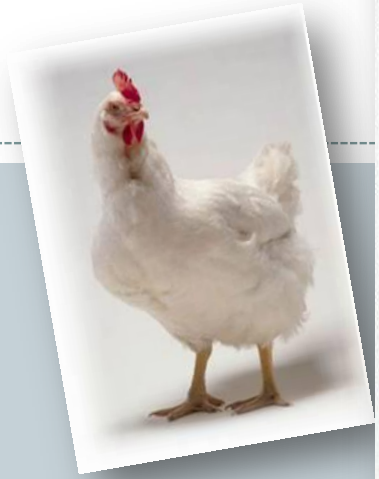
Women, Infants & Children (WIC)

- The current **average monthly value of WIC checks is $54.28**. Due to the expected increases in the cost of food, this number will undoubtedly rise.

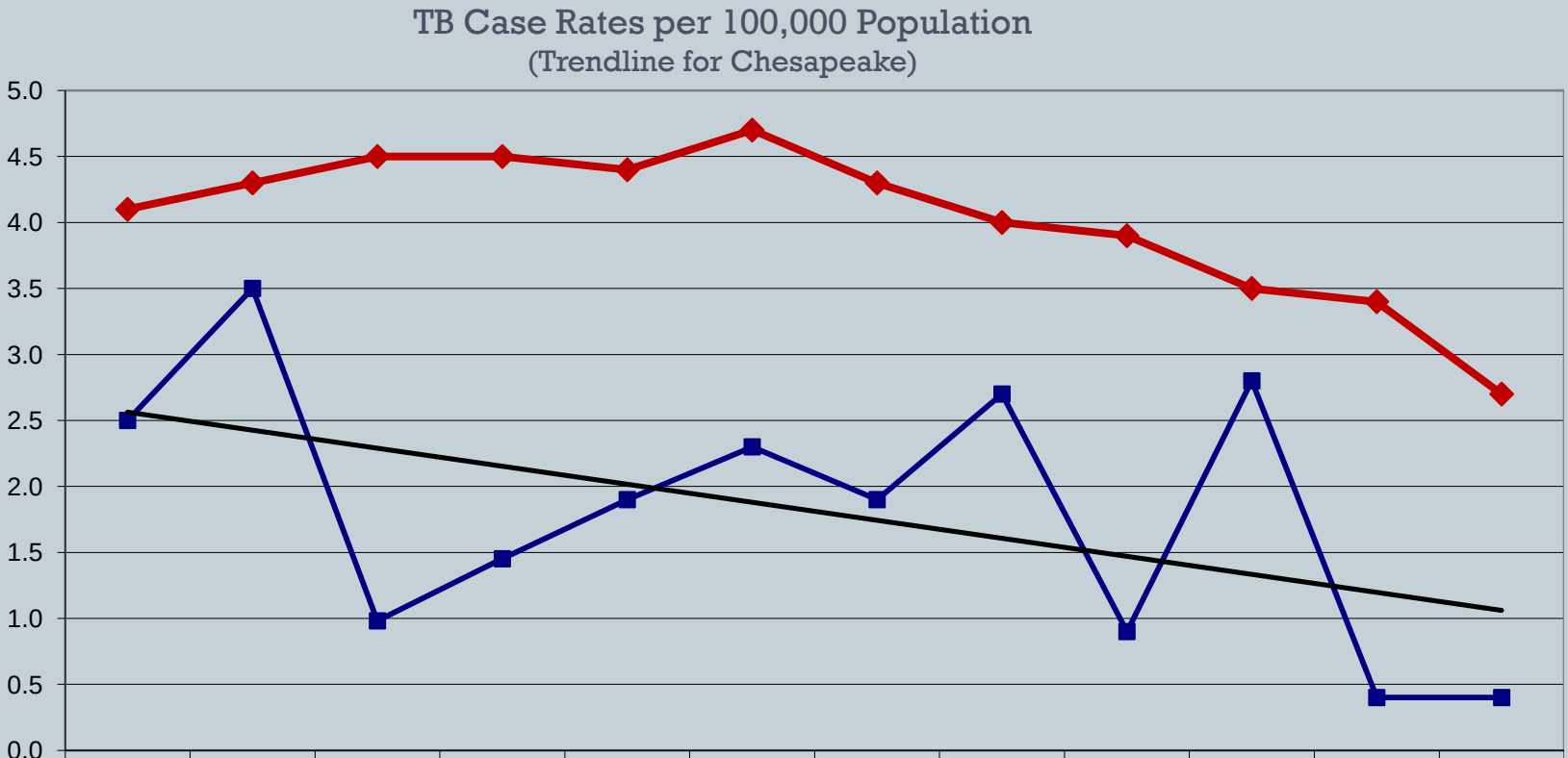
- There are currently **4,217 Chesapeake citizens enrolled in WIC**. The value of WIC to the community grocers is **$228,898 per month or $2,746,785 per year.**

- The Chesapeake WIC Program promotes and supports breast-feeding. Because of the efforts made, the number of women who exclusively breastfeed exceeds the number of women who breastfeed and supplement with artificial milk. **Currently there are 200 women on WIC breastfeeding** and of those **111 are exclusively breast-feeding.** Breastfeeding is a community effort and has many benefits not only for the mother and child but for the whole community. We are exciting that so many are choosing to breastfeed and we are able to help them succeed.

Communicable Disease



Tuberculosis (TB)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chesapeake	2.5	3.5	1.0	1.5	1.9	2.3	1.9	2.7	0.9	2.8	0.4	0.4
Virginia	4.1	4.3	4.5	4.5	4.4	4.7	4.3	4.0	3.9	3.5	3.4	2.7

Source: http://www.vdh.virginia.gov/epidemiology/DiseasePrevention/Programs/Tuberculosis/Epidemiology/documents/TBCR2011_working_file_final.pdf

Sexually-Transmitted Diseases (STDs)

- **Who is Being Infected?**

  In the United States alone, an estimated **19 million new cases** of STDs are reported each year. This table shows the incidence and prevalence of some of the most common STDs.

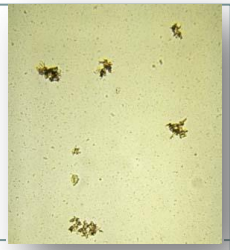
STD	New Cases (estimated)	Number Currently Infected (estimated)
Chlamydia	1.2 million	***
Gonorrhea	300,000	***
Syphilis	14,000	***
Herpes (HSV)	1 million	45 million
Hepatitis B (HBV)	38,000	800,000 – 1.4 million
Hepatitis C (HCV)	18,000	2.7 million – 3.9 million
Genital Warts / Human Papillomavirus (HPV)	6 million	20 million
Trichomoniasis	7.4 million	***

***** No recent surveys on national prevalence for chlamydia, gonorrhea, syphilis or trichomoniasis have been conducted.**

Source: http://www.cdcnpin.org/scripts/std/std.asp

Diagnosed Cases of Total Early Syphilis

Rate/100,000 population

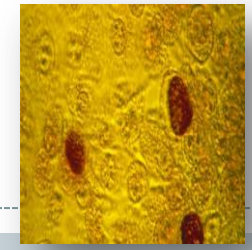


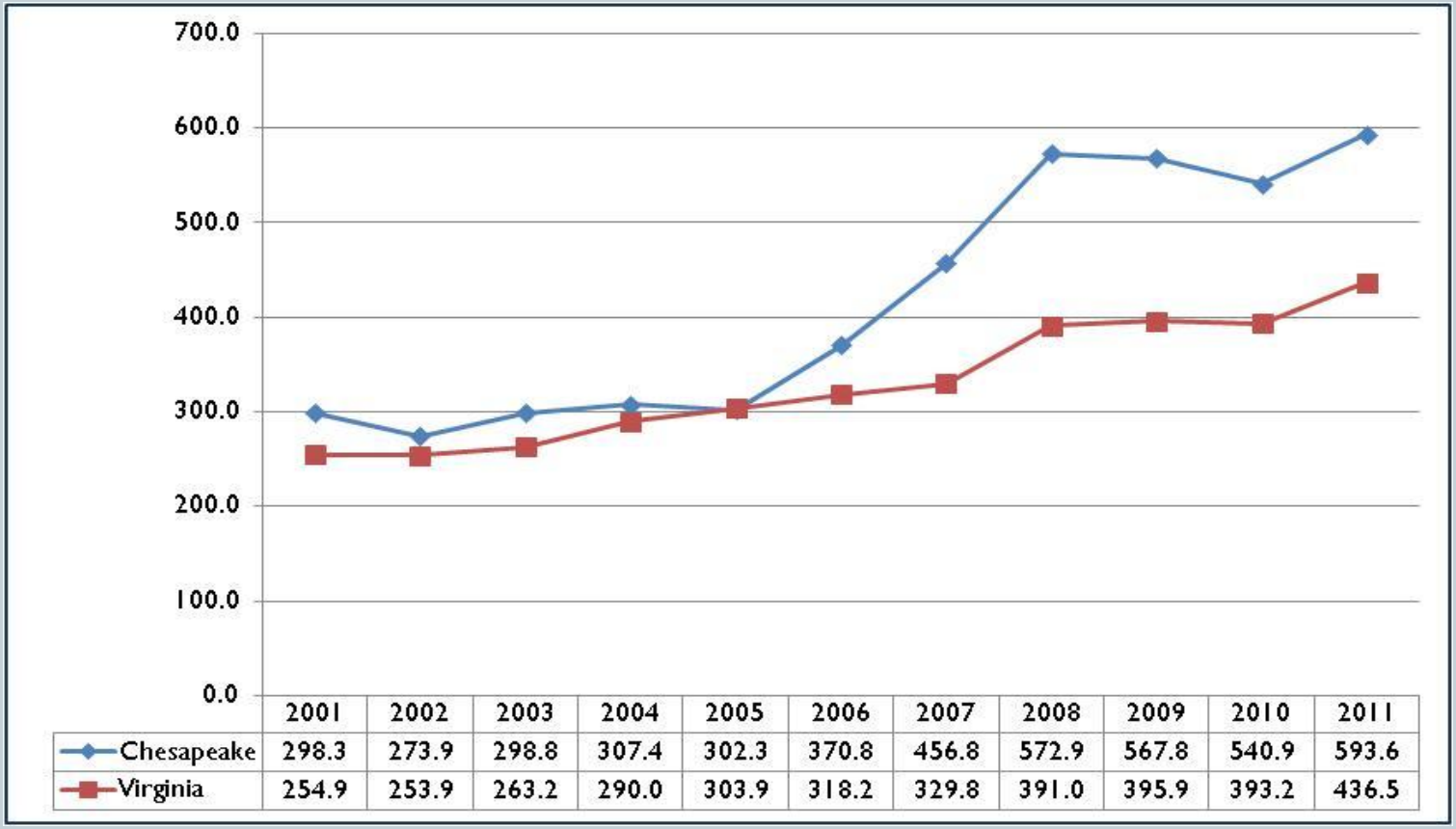
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chesapeake	4.9	4.4	3.3	5.1	6.5	3.7	5.9	6.8	7.3	4.5	9.0
Virginia	3.3	2.3	2.1	3.0	3.9	4.6	5.3	6.6	7.0	6.5	6.3

Source: VDH Epidemiology Division of Surveillance and **Investigation**, 2001-2011
http://www.vdh.virginia.gov/epidemiology/DiseasePrevention/DAta/Quarterly/1st%20Quarter%202012/Table4Syph_Q1.pdf

Diagnosed Cases of Chlamydia

Rate/100,000 Population



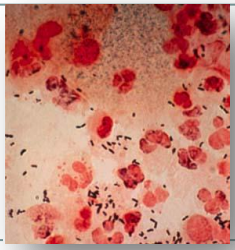


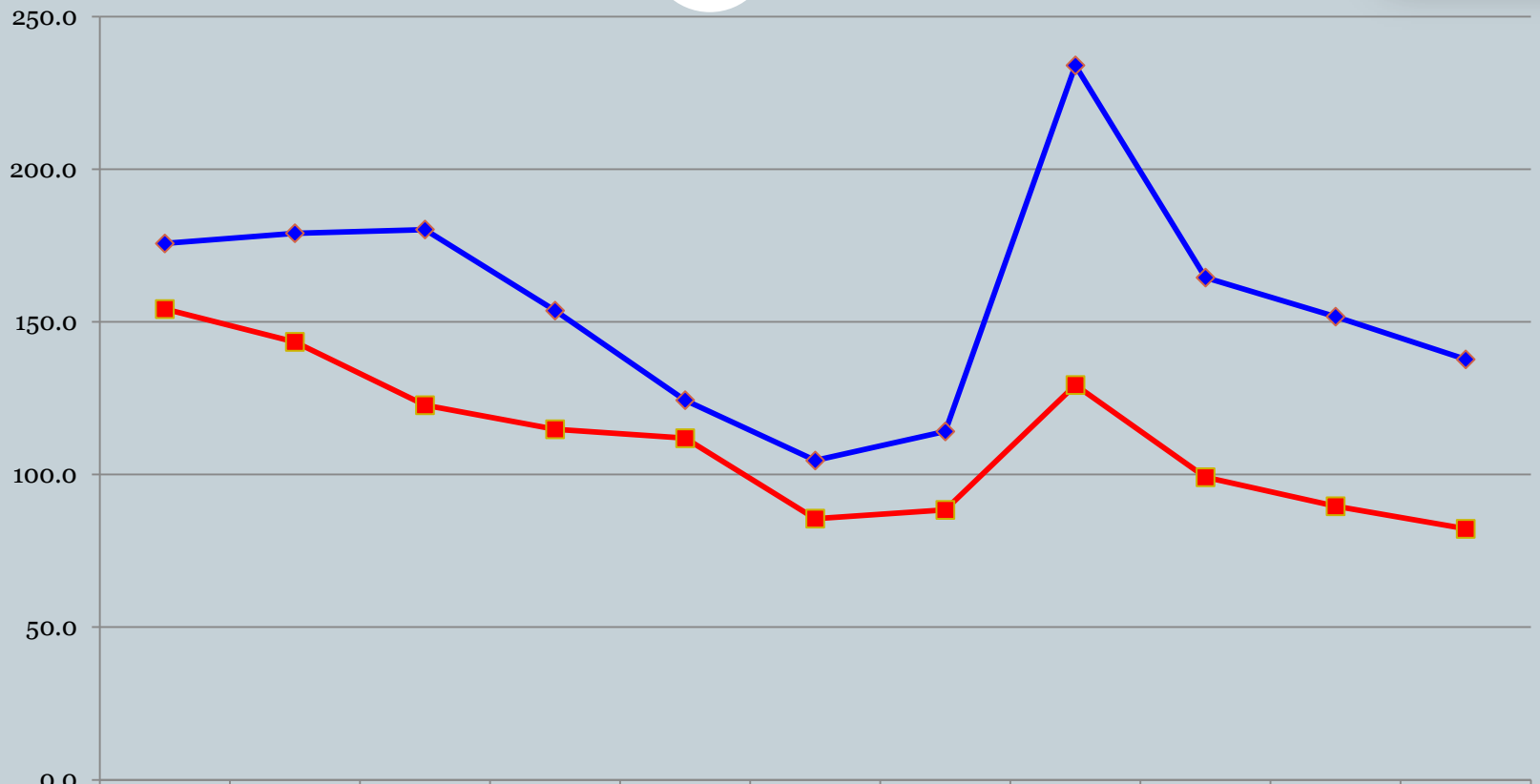
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chesapeake	298.3	273.9	298.8	307.4	302.3	370.8	456.8	572.9	567.8	540.9	593.6
Virginia	254.9	253.9	263.2	290.0	303.9	318.2	329.8	391.0	395.9	393.2	436.5

Source: VDH Epidemiology Division of Surveillance and Investigation, 2001-2011
http://www.vdh.virginia.gov/epidemiology/DiseasePrevention/DAta/Quarterly/1st%20Quarter%202012/Table4CT_Q1.pdf

Diagnosed Cases of Gonorrhea

Rate/100,000 Population

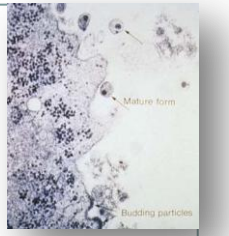




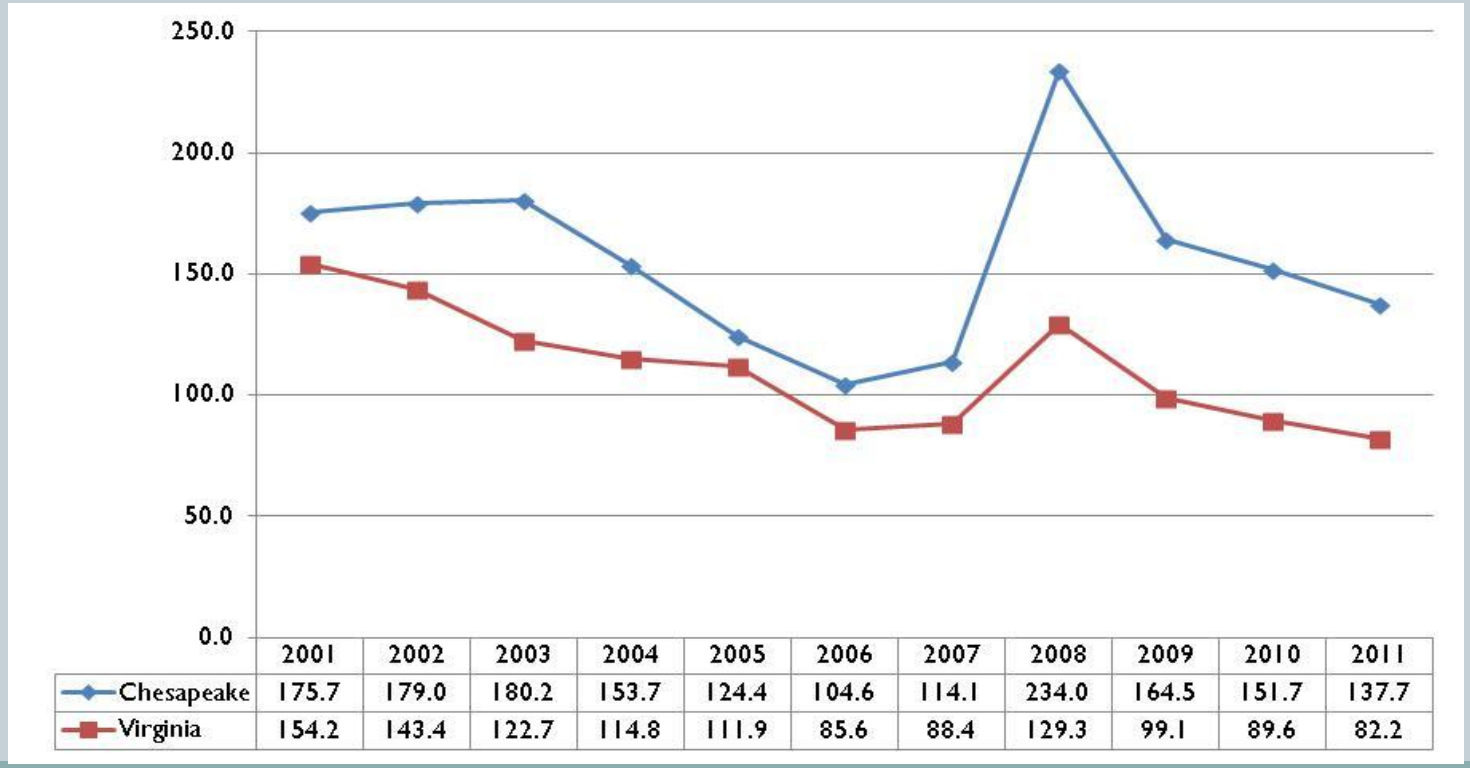
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chesapeake	175.7	179.0	180.2	153.7	124.4	104.6	114.1	234.0	164.5	151.7	137.7
Virginia	154.2	143.4	122.7	114.8	111.9	85.6	88.4	129.3	99.1	89.6	82.2

Source: VDH Epidemiology Division of Surveillance and Investigation, 2001-2011
http://www.vdh.virginia.gov/epidemiology/DiseasePrevention/DAta/Quarterly/1st%20Quarter%202012/Table4GC_Q1.pdf

Newly Diagnosed Cases of HIV Disease
Rate/100,000 Population



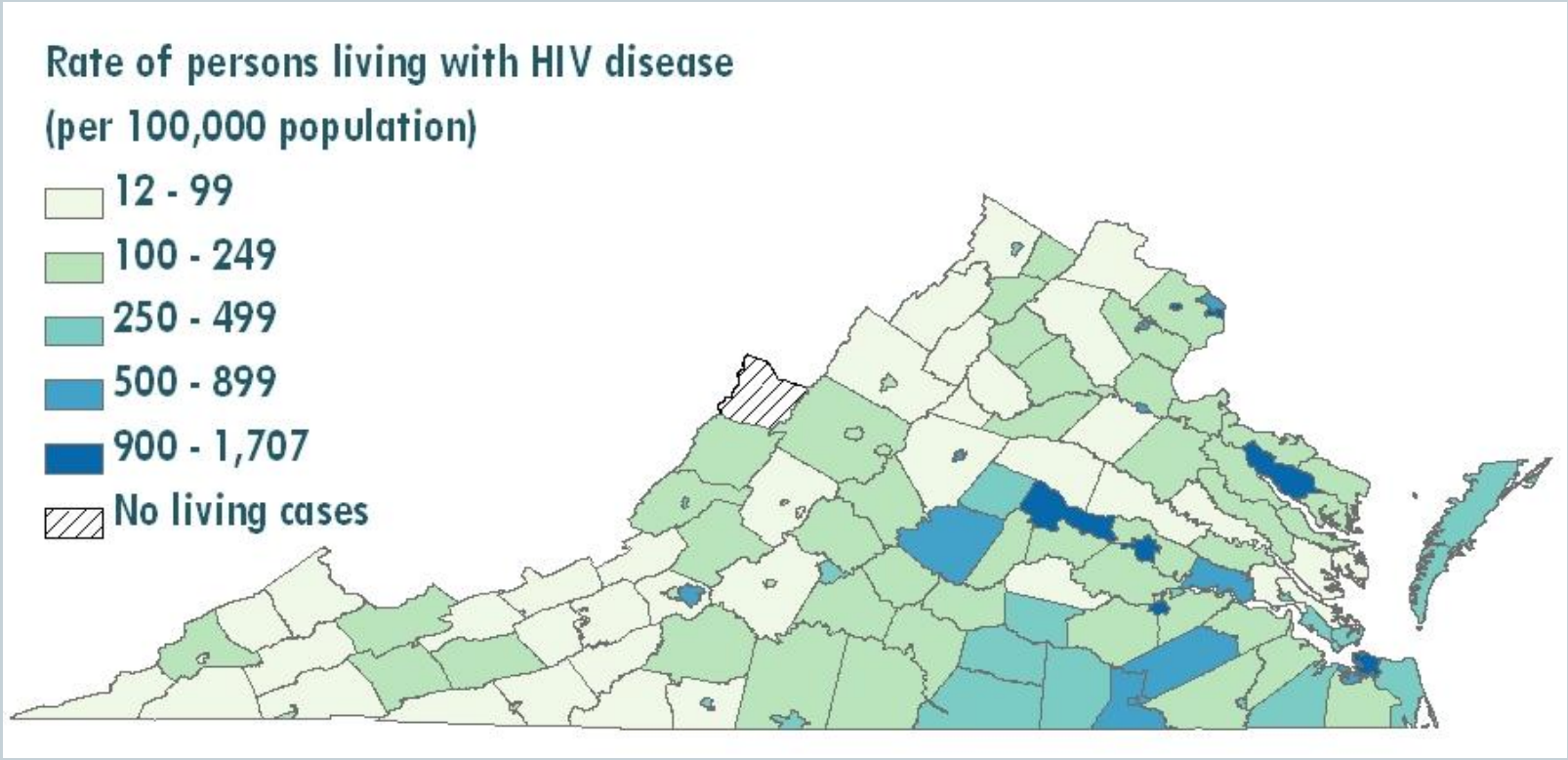
Beginning with 2009 data, HIV infection and AIDS are no longer being presented separately. Instead, HIV disease will represent the number of persons newly reported to VDH with HIV infection regardless of disease progression, and includes people with an AIDS defining condition at first HIV report.



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chesapeake	175.7	179.0	180.2	153.7	124.4	104.6	114.1	234.0	164.5	151.7	137.7
Virginia	154.2	143.4	122.7	114.8	111.9	85.6	88.4	129.3	99.1	89.6	82.2

Source: VDH Epidemiology Division of Surveillance and Investigation, 2001-2011
http://www.vdh.virginia.gov/epidemiology/DiseasePrevention/DAta/Quarterly/1st%20Quarter%202012/Table4GC_Q1.pdf

Prevalence of HIV Disease in Virginia by Locality, 2009



Source: VIRGINIA HIV EPIDEMIOLOGY PROFILE 2011

Influenza

- **Pandemic influenza is a global outbreak** of disease that occurs when a new influenza A virus appears in humans, causes serious illness, and then spreads easily from person to person worldwide.

- **Three major influenza pandemics swept the globe in the 20th century causing millions of deaths,** and no one knows for sure when the next pandemic may strike

- Efforts are underway to plan for the complex issues and serious impact that a new influenza pandemic could cause in the Commonwealth

Trend Summary – Chesapeake Compared to State

Performance Trend *	Trend Prior to 2005
Improving	
Maintaining	
Worsening	

2011 Chesapeake Rates are Higher than the State Average in:	Trend *	
Obesity		
Cardiovascular Disease Deaths		
Chronic Lower Respiratory Disease Deaths		
Diabetes Mellitus Deaths		
Malignant Neoplasm Deaths		
Alzheimer's Disease Deaths		
Teen Pregnancy		
Gonorrhea		
Chlamydia		
Syphilis		
HIV Incidence		

2011 Chesapeake Rates are Lower than the State Average in:	Trend *	
Cerebrovascular Disease Deaths		
Infant Mortality		
Tuberculosis		
Low Birth Weight		

Healthy People 2020

- Healthy People provides science-based, 10-year national objectives for improving the health of all Americans.
- For 3 decades, Healthy People has established benchmarks and monitored progress over time in order to:
  - Encourage collaborations across communities and sectors
  - Empower individuals toward making informed health decisions
  - Measure the impact of prevention activities

		Baseline Data		Current Data		
Indicator	**Healthy People 2020 Objective**	**Year**	**Result**	**Year**	**Chesapeake**	**Virginia**
Access to Healthcare						
Health Insurance Coverage	100% of all people	2008	83.2%	2009	85.0%	86.8%
Maternal and Child Health						
Low Birth Weight	7.8%	2007	8.2%	2011	8.4%	8.0%
Infant Death	≤6 deaths per 1,000 live births	2006	6.7	2010	5.7	6.8
Injury						
Unintentional	≤36 deaths per 100,000	2007	40.0	2011	27.7	33.4
Motor Vehicle-Related	≤12.4 deaths per 100,000	2007	13.8	2010	5.9	9.2
Homicide	≤5.5 homicides per 100,000	2007	6.1	2010	4.0	4.6

Source: HealthyPeople.gov; County Health Rankings and Roadmaps; Virginia Health Care Foundation, Office of the Uninsured
DMV, 2008 Virginia Crash Facts; Kaiser Family Foundation, State Health Facts; National Center for Health Statistics, Health Indicators Warehouse

Healthy People 2020

Indicator	Healthy People 2020 Objective	Baseline Data		Current Data		
		Year	Result	Year	Chesapeake	Virginia
Communicable Disease						
Tuberculosis	≤1 new case per 100,000	2005	4.9	2010	0.4	3.4
Gonorrhea	Females: ≤257 new cases per 100,000	2008	285	2008	137.7	75
	Males: ≤198 new cases per 100,000	2008	220	2008	98.1	57.6
Syphilis	Females: ≤1.4 new cases per 100,000	2008	1.5	2008	1.8	0.7
	Males: ≤6.8 new cases per 100,000	2008	7.6	2008	5.0	5.7
AIDS (HIV)	≤3.3 deaths per 100,000	2007	3.7	2010	3.6	1.8
Immunizations	80% children aged 19 to 35 months receive the recommended immunizations	2008	68%	2010	77.2%*	74.7%*
Chronic Disease						
All Cancers	≤160.6 deaths per 100,000	2007	178.4	2010	181.5	170.9
Breast Cancer	≤20.6 deaths per 100,000	2007	22.9	2008	27.3	25.1
Lung Cancer	≤45.5 deaths per 100,000	2007	50.6	2008	62.7	54.4
Coronary Heart Disease (Diseases of the Heart)	≤100.8 deaths per 100,000	2007	126.0	2010	178.9	167.6
Stroke (Cerebrovascular)	≤33.8 deaths per 100,000	2007	42.2	2010	45.3	41.7
Diabetes	≤65.8 deaths per 100,000	2007	73.1	2010	23.6	18.7
Obesity	30.6%	2005-08	34%	2009	27.2	25.5
Smoking	12.0%	2008	20.6	2010	13.5	16.4

Current immunization data represents vaccination coverage with individual vaccines & selected series at 24 months of age (using VIIS data)

Source: Virginia Department of Health, Epidemiology, Disease Prevention, 2008; Virginia Department of Health Statistics, 2010; National Cancer Institute, State Cancer Profiles Kaiser Family Foundation, State Health Facts; Virginia Department of Health Immunization Progress Reports

Environmental Health

Restaurant Inspections

- There are approximately **700** restaurants in Chesapeake.

2011	1Q	2Q	3Q	4Q	Total
Number of inspections	568	361	341	253	1523
Number of complaints investigated (Food)	23	30	32	16	101
Number of complaints investigated (Other)	11	14	16	9	50

Rabies

86 confirmed animal cases of rabies since 1988
(3 cats, 2 bats, 62 raccoons and 19 foxes)

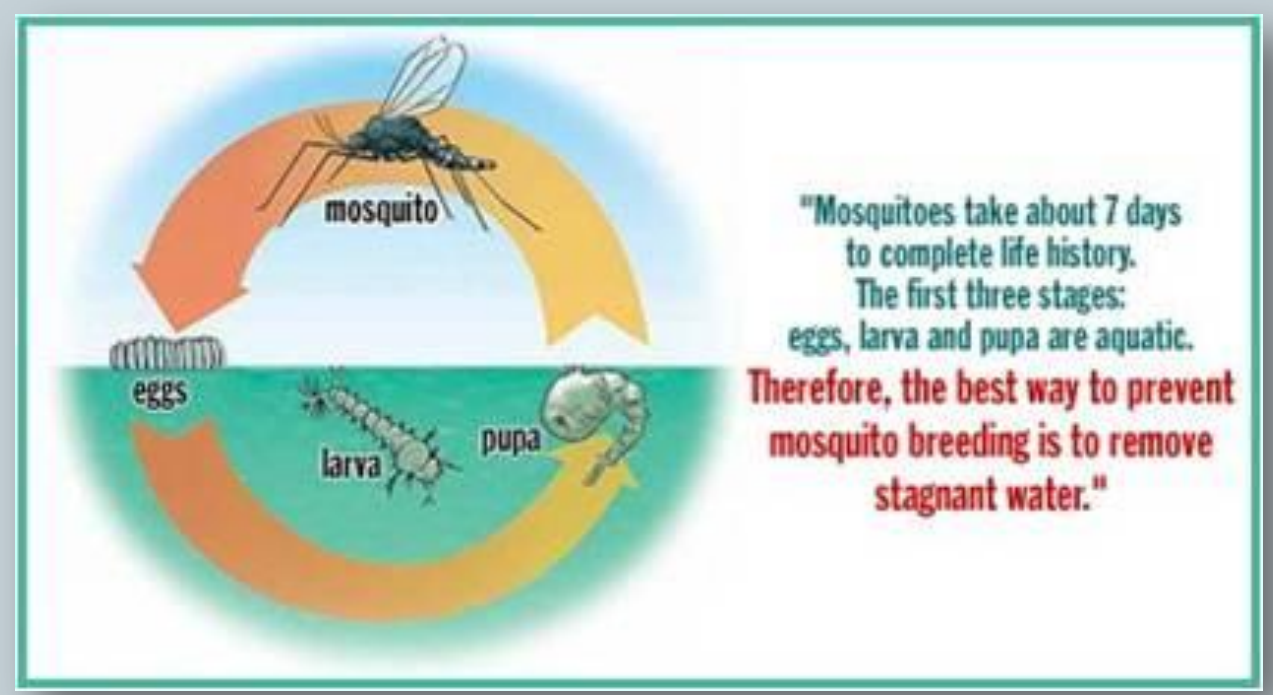
The following precautions are recommended:

- Be sure dogs and cats are up-to-date on vaccinations.
- Keep pets confined to home or yard.
- Keep yards free of food that could attract wildlife.
- Do not handle or touch stray animals or wildlife.
- Warn children to report any animal bites or scratches.
- Report stray or unvaccinated animals.

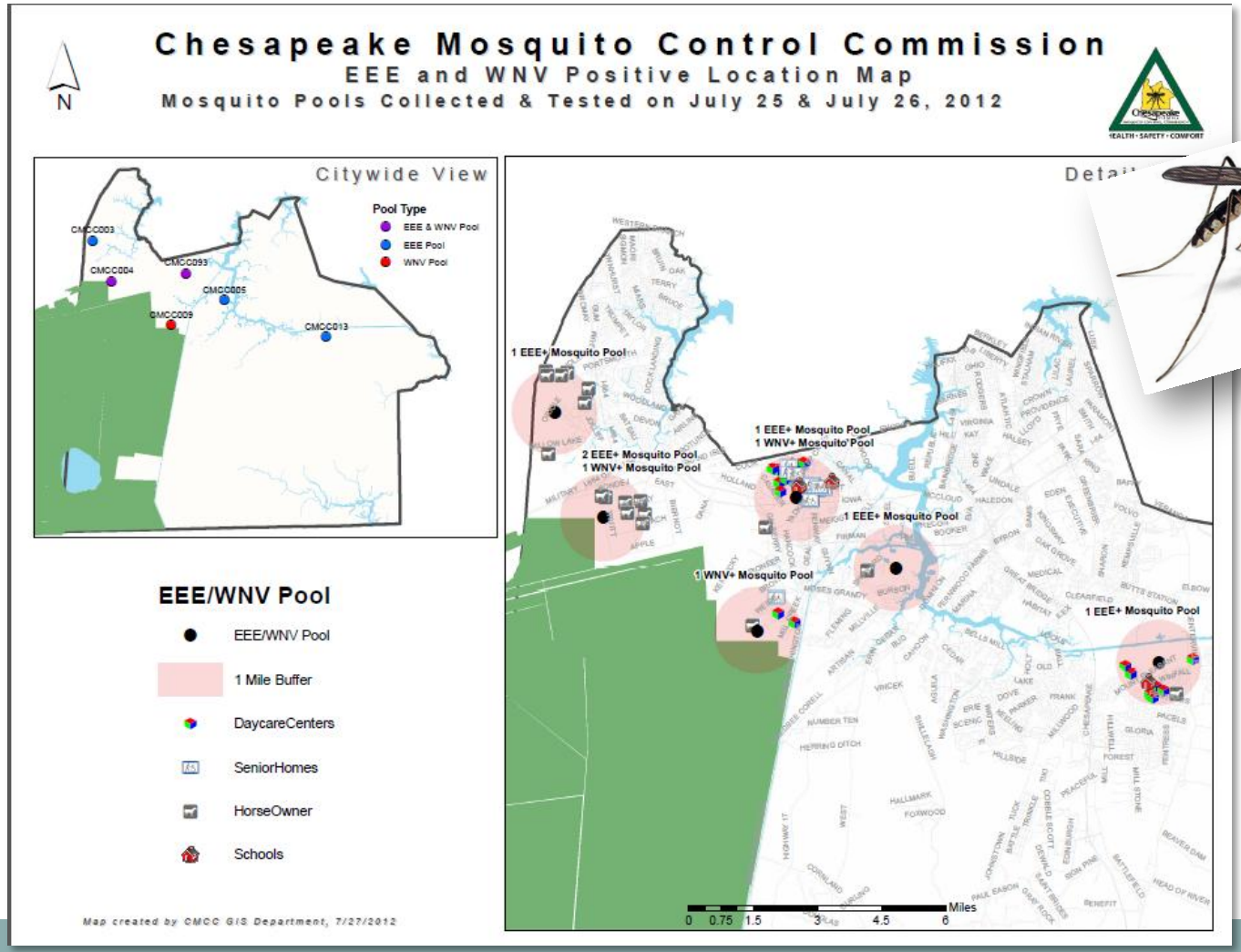
- Report all animal bites to the
  Chesapeake Health Department **(757) 382-8672** **OR**
  Chesapeake Animal Control **(757) 382-8080**

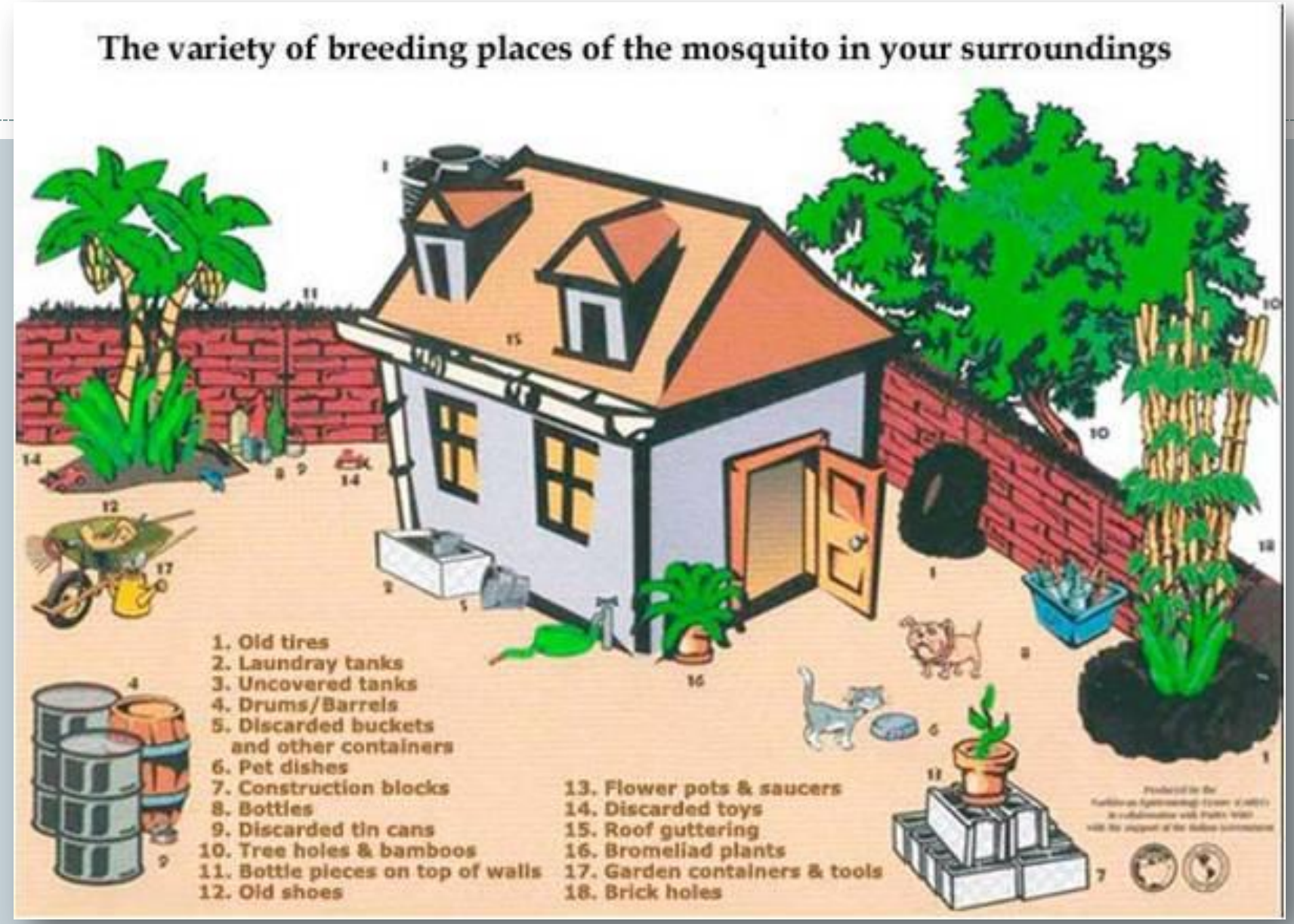
Vector-borne Disease in Chesapeake

West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE)

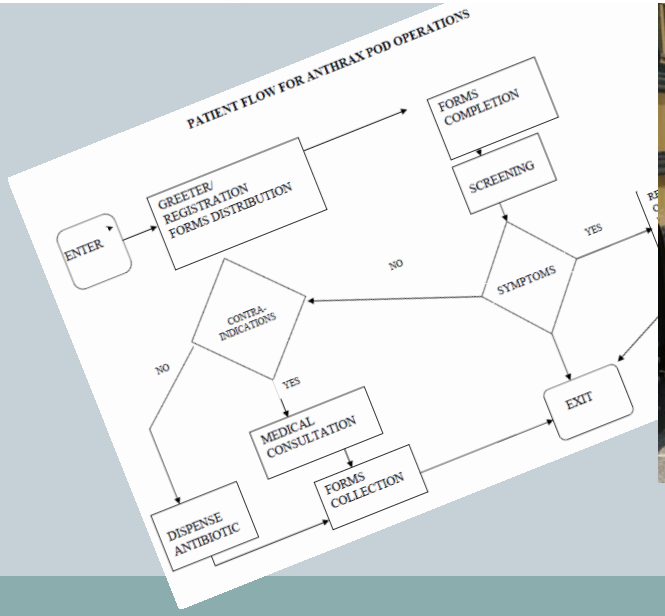


Using GIS Mapping with Buffer Zones




The variety of breeding places of the mosquito in your surroundings
1. Old tires
2. Laundray tanks
3. Uncovered tanks
4. Drums/Barrels
5. Discarded buckets and other containers
6. Pet dishes
7. Construction blocks
8. Bottles
9. Discarded tin cans
10. Tree holes & bamboos
11. Bottle pieces on top of walls
12. Old shoes
13. Flower pots & saucers
14. Discarded toys
15. Roof guttering
16. Bromeliad plants
17. Garden containers & tools
18. Brick holes

Emergency Preparedness & Response Programs

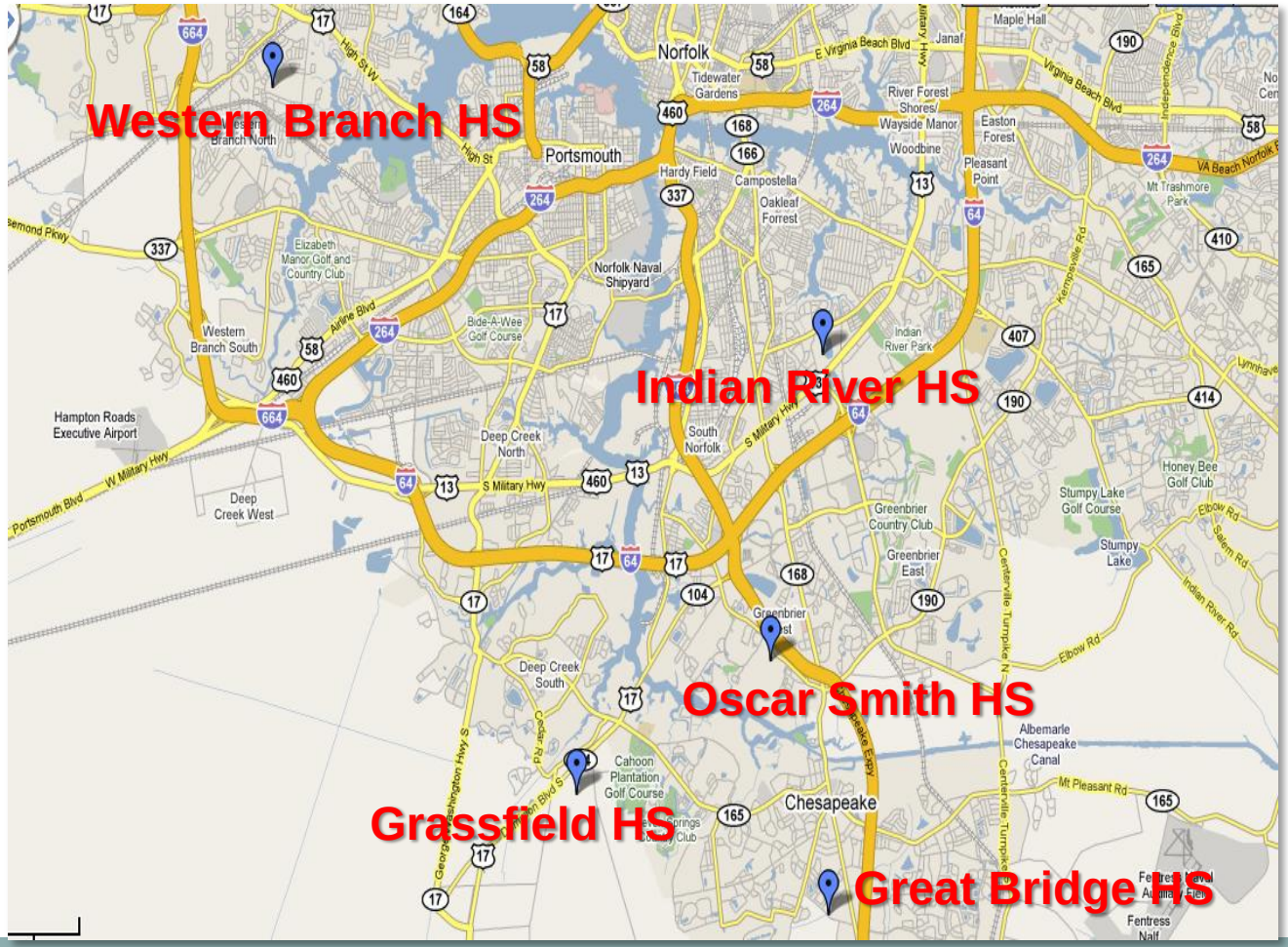


Emergency Preparedness & Response Programs

- Conduct Annual Exercises in Emergency Mass Dispensing of Medical Countermeasures. Using…
  - "Push" method of Delivery to Chesapeake Residences
  - "Pull" method of opening Point of Dispensing (POD) Models
- Continuity of Operations Planning
- Agency-wide Bioterrorism and Pandemic Planning
- Five mobile electronic message trailers are positioned around the City providing public health message to targeted communities

Emergency Preparedness and Response

Five Medical Countermeasures Point-of-Dispensing (POD) Sites



Emergency Preparedness and Response

CHESAPEAKE MEDICAL RESERVE CORPS (CMRC)

- **In 2012, 4,000 volunteer hours were recorded for a total value of $120,000**
  (Medical personnel $34/hr; Non-medical personnel $22/hr)
- Number of volunteers: **200+** – 60% medical and 40% non-medical
- Nature of CMRC Volunteer activities
  - Community Outreach/Flu Shot Clinics/Public Health Education in partnership with Chesapeake Regional Medical Center & Lifestyle Center
  - Chesapeake Sheriff's Senior Services Seminar (providing BP checks and counseling)
  - Great Bridge Battlefield & Waterways Fest alongside our Community Emergency Response Team (CERT) and Fire Department (First Aid Teams)
  - Leadership roles in annual Mass Dispensing Exercise and Quarterly Meetings & Trainings for CMRC Volunteers
  - Partnership with Montero Medical Missions & Health Fair for U.S. Veterans
  - Virginia OPSAIL 2012, First Aid, Community Outreach & Marketing Teams
  - Participate in VA Dept. of Health (VDH) Video Seminar/Training for Volunteers
  - N95 Respirator Fit Testing for Chesapeake Health Department staff
  - BLS, CPR and First Aid Training of CMRC, CERT & CART

Questions & Answers

Reference List

- Centers for Disease Control and Prevention, Division for Heart Disease and Stroke Prevention
- Council on Virginia's Future, Hampton Roads Partnership, 2001-2010
- County Health Rankings and Roadmaps, 2012
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- Virginia Department of Health, Office of Epidemiology, Reportable Disease Surveillance, 2001-2011